AA.1 State Agencies

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STATE OF CALIFORNIA------- BUSINESS, TRANSPORTATION AND HOUSING AGENCY Edmund G. Brown Jr, Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF COMMUNITY PLANNING
1657 RIVERSIDE DRIVE
P. O. BOX 496073
REDDING, CA 96049-6073
PHONE (530) 229-0517
FAX (530) 225-3020
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IGR/CEQA Review
Sis-5-58
Klamath River Dam Removal EIS/EIR
SCH# 2010062060

U.S. DOI and California Department of Fish and Game
619 Second Street
Eureka, CA 95501

Dear Mr. Leppig:

Thank you for the opportunity to review the Environmental Impact Statement and Environmental Impact Report (EIS/EIR) prepared for the Klamath River Dam Removal Project. The project includes the removal of Iron Gate, Copco 1 and 2, and J.C. Boyle dams and their associated facilities. The Iron Gate and Copco dams are located in Siskiyou County. Iron Gate Dam is the furthest downstream and is located at River Mile 190.

The primary concern for Caltrans is whether Interstate 5, State Route 96, or State Route 263 bridge structures will be negatively affected by the project. Caltrans requested the HEC-RAS model prepared for the project by the U.S. Bureau of Reclamation. Thank you for providing this information during the EIS/EIR review period. The model provides adequate information to assess the potential impacts to the highway structures. We have determined that significant impacts to the structures are not expected to occur.

If you have any questions, please call me at (530)225-3369.

Sincerely,

MARCELINO GONZALEZ
Local Development Review
Office of Community Planning
District 2

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CA_LT_1208_005

STATE OF CALIFORNIA------- BUSINESS, TRANSPORTATION AND HOUSING AGENCY Edmund G. Brown Jr, Governor

DEPARTMENT OF TRANSPORTATION
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Flex your power!
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IGR/CEQA Review
Sis-5-58
Klamath River Dam Removal EIS/EIR
SCH# 2010062060
ADDENDUM COMMENTS

November 17, 2011

U.S. DOI and California Department of Fish and Game
619 Second Street
Eureka, CA 95501

Dear Mr. Leppig:

Thank you for the opportunity to review the Environmental Impact Statement and Environmental Impact Report (EIS/EIR) prepared for the Klamath River Dam Removal Project. The project includes the removal of Iron Gate, Copco 1 and 2, and J.C. Boyle dams and their associated facilities. The Iron Gate and Copco dams are located in Siskiyou County. Iron Gate Dam is the furthest downstream and is located at River Mile 190.

On Page 3.22-15 the EIS/EIR Section 3.22 Traffic and Transportation includes a discussion of Road Condition Effects. Due to the increase in large trucks necessary for deconstruction and construction, Caltrans requests that the analysis of road conditions include the Interstate 5 (I-5) ramp intersections affected by the project. Consistent with the EIS/EIR impact discussion, we request that following completion of dam deconstruction additional analysis of road conditions at the ramp intersections be completed and where needed, as a result of wear generated by deconstruction that repair or replacement actions be required.

If you have any questions, please call me at (530)225-3369.

Sincerely,

MARCELINO GONZALEZ
Local Development Review
Office of Community Planning
District 2

CA_LT_1230_011
Duplicate of CA_LT_1230_010

California Regional Water Quality Control Board
North Coast Region
Geoffrey M. Hales, Chairman

www.waterboards.ca.gov/northcoast
5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403
Phone: (877) 721-9203 (toll free) • Office: (707) 576-2220 • FAX: (707) 523-0135

December 27, 2011

Ms. Elizabeth Vasquez
MP150 – Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825

Mr. Gordon Leppig
CA Department of Fish and Game
619 Second Street
Eureka, CA 955501

Dear Ms. Vasquez and Mr. Leppig:

Regarding**:** Comments on *Klamath Facilities Removal Public Draft Environmental Impact Statement/Environmental Impact Report (DEIS/DEIR)*

The North Coast Regional Water Quality Control Board (Regional Water Board) appreciates the opportunity to provide comments to the Department of Interior, Bureau of Reclamation (DOI), and the California Department of Fish and Game (DFG), on the draft Environmental Impact Statement/Environmental Impact Report (DEIS/DEIR) that evaluates impacts of removing four dams on the Klamath River pursuant to the terms of the Klamath Hydroelectric Settlement Agreement (KHSA). The Regional Water Board was not a party to the KHSA, but did participate in the development of interim water quality measures while these additional studies are conducted on PacifiCorp's Klamath Hydroelectric Project (KHP). Regional Water Board staff has been working with the federal and state lead agencies as a cooperating agency under NEPA and a responsible agency under CEQA.

The Klamath River is listed as impaired under Clean Water Act section 303(d) because it does not meet water quality standards for the pollutant/stressors of temperature, organic enrichment/low DO, and nutrients. The reach of the Klamath River that includes portions of the KHP, specifically Copco and Iron Gate Reservoirs is also listed as impaired for the bluegreen algae toxin microcystin. The TMDL assigns three load allocations to the KHP in California which are detailed in Chapter 2 of the DEIS/DEIR. While the decision to remove the dams will likely result in achieving the DO objectives and load allocations assigned to the KHP, the decision to move forward with dam removal will be made by several federal and state agencies but not the Regional Water Board. In the event of an affirmative Secretarial Determination and state concurrence, the Regional Water Board will then decide whether dam removal under the KHSA complies with the TMDL, and will rely in part on this environmental analysis for information. Also, a water quality certification to accompany a federal dredge and fill permit must be issued by the State or Regional Water Board, which will also require CEQA compliance.

The Regional Water Board is currently circulating a proposed Policy for Aquatic Ecosystem Restoration, which is intended to provide guidance on the implementation of ecological restoration projects which may result in temporary water quality impacts but that will in the long-term improve water quality conditions and provide greater support of beneficial uses than currently exists. The Policy articulates the continuing support of the Regional Water Board for the use of aquatic system restoration as one of the several existing tools to be used in the restoration and maintenance of the chemical, physical, and biological integrity of the region's waters. If the Policy is adopted into the Basin Plan, the DEIS/DEIR will provide useful information for the Regional Water Board to evaluate the Facilities Removal project within the context of the Policy.

The DEIS/DEIR is a comprehensive document that will serve the Regional Water Board's needs should the KHSA proceed. The DEIS/DEIR adequately describes the short- and long-term impacts to water quality from the decommissioning of the Klamath dams, including impacts to water chemistry, sediment chemistry, hydrology, biology, and geomorphology. In addition, it properly describes the impacts of the facility in its current condition. KHP conditions contribute to the non-attainment of beneficial uses, including the most sensitive beneficial uses: those associated with the cold water fishery (specifically the salmonid fishery), and those related to cultural uses and practices. The DEIS/DEIR adequately describes applicable and feasible Best Management Practices and mitigation measures designed to minimize soil erosion, surface runoff, and other potential adverse water quality impacts, including cumulative impacts. It also appears that important mitigation has been incorporated into the project description, particularly the timing of facility removal designed in a manner that best avoids and minimizes impacts to fisheries.

Additional, specific water quality comments are attached.

We want to thank you and your team for the impressive work completed to date and look forward to the next phase of this process.

If you have questions regarding this letter, please contact Clayton Creager at (707) 576-2666 or by email: ccreager@waterboards.ca.gov. Written correspondences or inquiries should be addressed to: North Coast Regional Water Quality Control Board, Attn.: Clayton Creager; 5550 Skylane Boulevard; Suite A, Santa Rosa, CA 95403.

Sincerely,

Original signed by

Catherine Kuhlman
Executive Officer

111227_CSC_Klamath_EISEIRComment_Transmittal

Enclosure: Comments on *Klamath Facilities Removal Public Draft Environmental Impact Statement/Environmental Impact Report (DEIS/DEIR)*

Klamath Facilities Removal
Draft Environmental Impact / Statement / Environmental Impact Report – 09/ 2011

Commenting Agency: CA North Coast Regional Water Quality Control Board

Commenters: Clayton Creager, David Leland, Bryan McFadin, and Alydda Mangelsdorf

---

Section & Page Number: ES-9 and ES-10

Comment:

- Consider adding to the Klamath Basin Timeline (pp. ES-9 and ES-10) a few relevant dates associated with water quality control. This is particularly appropriate with respect to Alternatives 1 and 4 in which implementation of the Total Maximum Daily Loads (TMDLs) adopted by the States of Oregon and California, and approved by the U.S. Environmental Protection Agency (USEPA), and the Action Plan adopted by California's North Coast Regional Water Quality Control Board (Regional Water Board) will become more fundamentally key to achieving or moving towards achievement of the stated environmental goals of the project. The dates relevant to water quality control in California include:
  - ✓ 1975, Regional Water Board adopts a comprehensive basin plan for the Klamath River Basin, including designation of the river as providing Cold Freshwater Habitat (COLD); Migration of Aquatic Organisms (MIGR); Spawning, Reproduction, and /or Early Development (SPWN); Water Contact Recreation (REC1); Agricultural Supply (AGR); and Hydropower Generation (POW), among other beneficial uses.
  - ✓ 2003, Regional Water Board adopts Native American cultural use as a beneficial use of the Klamath River from the Seiad Valley Hydrologic Subarea downstream to the Klamath Glen Hydrologic Subarea.
  - ✓ Under Section 303(d) of the Clean Water Act, the USEPA lists the Klamath River as impaired for temperature, dissolved oxygen, and nutrients in , sediment in , and microcystin (Please refer to corrections provided in Table 2-7 for listing dates -- comment below)
  - ✓ In 2010, the Regional Water Board adopts a Total Maximum Daily Load (TMDL) to determine the pollutant load reductions necessary to return water quality to a condition which supports the beneficial uses of the Klamath River. The Regional Water Board simultaneously adopts revised DO objectives and an Action Plan identifying the specific actions and time frames necessary to restore water quality. USEPA approves the TMDL.

Section & Page Number: ES-17

Comment:

- The CEQA project objectives as listed on page ES-17 are consistent with the objectives of the Regional Water Board as defined in its Basin Plan.

Section & Page Number: ES-21 – ES-27

Comment: The selected project alternatives represent a reasonable range of project options.

Section & Page Number: Table ES-4, footnote 9, p. ES-30

Comment: First sentence is misleading. Suggest rewording to make it clearer that increased periphyton biomass would not lead to increases in algal toxins in the Klamath River.

Section & Page Number: ES-28 – ES-36

Comment: Table ES-4, Summary of Significant and Unavoidable Impacts, should include mitigation measures already included in the project alternative design plan such as seasonally-timed facility removal plan, activities to ensure access to refugial habitat, and transport of juveniles out of high impact reaches.

Section & Page Number: Section ES.7.2, page ES-41

Comment: Baseline should include "listing under Section 303(d) of the Clean Water Act" as a result of impaired water quality and habitat conditions.

Section & Page Number: 2.4.3.9, p. 2-44, 4th bullet

Comment: Chronic fine sediment inputs also can be associated with routine road operations, not just road failures.

Section & Page Number: 2.4.4, page 2-62

Comment: Table 2-21 describes the features to be removed and retained under Alternative 3. Please describe (or reference a discussion elsewhere in the document) the hydrologic consequences of retaining structures within the active channel. Will the natural pattern and range of flows act upon hardened structures in such a manner as to result in excessive or extreme site-specific streambed or streambank erosion? How does the retention of hardened structures affect the ability of the river to ultimately achieve a self-sustaining, dynamic equilibrium?

Section & Page Number: Table 3.2 – 2 pages: 3.2 – 4 – 3.2 - 6

Comment: The beneficial uses listed for the Pacific Ocean should be modified to better reflect the findings of the California Ocean Plan. For example, the Ocean Plan identifies "fish migration" as a beneficial use, not "migration of aquatic organisms." Also, the Ocean Plan includes "mariculture" as a beneficial use which does not appear to be listed in Table 3.2-2. It is important to note that the 2009 Ocean Plan cited in this section is before the State Board for amendment, including the proposed amendment of information included in Table 3.2-2.

Section & Page Number: 3.2.2.2.1, Table 3.2-4 page 3.2-9

Comment: The interstate temperature objective should also be presented:

Cold and warm should be all caps in the sentence below:
"The temperature of any cold or warm freshwater habitat shall not be increased by more than 2.8ºC (5ºF) above natural receiving water temperature."

Section & Page Number: 3.2.2.4.6 page 3.2-17, last sentence.

Comment: The document should reference the Basin Plan, which includes the Scott River TMDL Action Plan. The work plan is not a good reference, and will be removed from the NCRWQCB website soon.

Section & Page Number: 3.2.3.2 page 3.2-22

Comment: First sentence, third paragraph: It's worth adding sunlight or solar energy as a natural heating factor.

Section & Page Number: 3.2.3.2 page 3.2-22

Comment: Third paragraph, last sentence:
Dunsmoor and Huntington's report indicates temperature effects of the reservoirs extend past the Salmon River.

Section & Page Number: 3.2.4.1.1 page 3.2-36

Comment: Third paragraph: The sentence below indicates the T4BSRN simulates attainment of the temperature TMDL, which it doesn't. It does not simulate attainment of the California temperature TMDL.

"The Klamath TMDL model includes a dams-in scenario (T4BSRN) assuming full attainment of the Oregon and California TMDLs with all Four Facilities in place (Tetra Tech 2009), similar to the conditions for the No Action/No Project Alternative."

Section & Page Number: 3.2.4.1 page 3.2-37

Comment: The EIS/EIR states that suspended sediment concentrations were modeled for the period 1961-2008, identified as background, and for conditions following dam removal. This approach appears appropriate for the purpose of establishing the degree to which suspended sediment discharges impact turbidity, suspended sediment, suspended material, and settable material. This information shows no long-term nuisance or impacts on beneficial uses.

Section & Page Number: 3.2.4.1.4 page 3-38

Comment: California's threshold of significance for DO is contained as a newly adopted Site Specific Objective for DO in the Klamath River and is based on a spatially and temporally varying percent DO saturation under natural receiving water temperatures. Regional Board staff agrees with the proposal to initiate drawdown during winter months when flows are higher and the

relative water quality impacts are lower than other times of the year. This element of the dam removal alternative seems to be designed as a mitigation but is not listed as such.

Section & Page Number: 3.2.4.1.1 page 3.2-50

Last Sentence:
The effects of increased tributary flows on lower Klamath River temperatures were evaluated as part of the Klamath TMDL. That analysis indicated very little temperature effect on the Klamath River, and only when the tributaries were assumed to have full natural flows, an unlikely future situation.

Section & Page Number: 3.2.4.1.1 page 3.2-51

Comment: Second paragraph -- Our review of the Klamath TMDL model results finds a temperature impact from the reservoirs that extends past Seiad Valley. The model results indicate minimal change associated with the reservoirs just upstream of the Trinity River, however. Therefore, we believe it is more accurate to state that the thermal impacts of the reservoirs prevent achievement of the water quality objective for temperature as far down as the Salmon River. This is further supported by information presented in Dunsmoor and Huntington (2006). If the statement that "water temperature from Seiad Valley (RM 129.4) to the Salmon River (RM 66.0) (the approximate location at which the reservoir temperature signal no longer persists under existing conditions), would meet water quality objectives" is based on an interpretation that beneficial uses are supported, despite the change in temperatures, that should be stated and explained.

Section & Page Number: 3.2.4.3.1.1 (throughout)

Comment: This section doesn't highlight the most acute temperature impact of the reservoirs on salmonids: the approximately three week shift in temperatures and the consequent effect on spawning salmon. This section should clearly distinguish between temperature conditions for juveniles rearing throughout the summer and adults spawning in the fall.

Section & Page Number: 3.2.6 pages 3.2 – 149 – 3.2 - 161

Comment: Table 3.2-14, Suspended Sediment, should consider for Alternative 3, the on-going excessive streambank and streambed erosion resulting from the retention of hardened

structures in the stream channel, and propose mitigation measures designed to reduce the impacts.

Section & Page Number: 3.3.4.3 page 3.3-53.

Comment: The No Action/No Project Alternative is described as resulting in major stress to migrating adult and juvenile salmonids during winter months, based on the comparison of modeling results to Newcombe and Jensen (1996) Severity Index. Please report the Severity Index Rank in the text.

Section & Page Number: 3.3.4.3 page 3.3-54

Comment: The text describes the environmental consequences of the No Action/No Project alternative, including the effects on dissolved oxygen (DO). Section 3.2.2 accurately depicts California's DO objectives for the Klamath River. So, Regional Water Board staff assumes that the description in Section 3.3.4 of the DO objectives being a requirement to meet 85% saturation is simply a short hand. Please add text to this section which clarifies this definition as a short-hand description.

Section & Page Number: 3.3.4.3 page 3.3-74

Comment: It would be useful to the reader to make clear that the Interim Measures are measures occurring under KHSA and occur whether or not the dams are decommissioned. It would also add clarity to mention that a truck and haul operation goes hand-in-hand with the habitat improvements described for the J.C. Boyle reach.

Section and Page Number: Table 4-4 (General) 4-22

Comment: One of the criteria for being granted an exemption from discharge prohibitions, under the proposed Regional Water Board Restoration Policy, is that "Disturbance to beneficial uses is limited to the absolute minimum by controlling the timing, character, and volume of discharge in accordance with the needs of the most sensitive beneficial uses and/or creating refugia or access to existing refugia, as necessary." (NCRWQCB 2011, page 11) If the dam removal alternative is selected the Regional Water Board staff encourages the coordination of KBRA restoration efforts with the proposed action so as to address the refugia needs of aquatic organisms that are created by the short-term impacts associated with the proposed action.

Section and Page Number: Comparison of comments made in Section 4.4.1.1 (p. 4-43) and Section 4.4.1.3 (p. 4-53)

Comment: Section 4.4.1.1 reports that the cumulatively considerable water quality impacts associated with increased SSCs will last 1-2 months during reservoir drawdown. This does not comport with page 4-43 which states "…SSCs in the lower Klamath River would be sufficient (≥30 mg/L) to substantially adversely affect beneficial uses throughout the lower River and the Klamath Estuary for 6-10 months following drawdown (Greimann et al. 2011)." Please clarify.

Section & Page Number: 5.5.3, page 5-100

Comment: Effects on periphyton community composition in the Hydroelectric Reach, while significant and unavoidable, would reflect the change from a reservoir to riverine setting, and thus would not necessarily be considered adverse. There are also factors under a free-flowing condition (e.g., scouring flows) that could limit the accumulation of periphyton densities to levels deleterious to water quality.

Section & Page Number: 5.6, page 5-107, last paragraph

Comment: Suggest that the second sentence be modified to state that both Alternatives 2 and 3 would result in superior long-term beneficial environmental effects, to be consistent with the preceding sentence.

End of Comments

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Oregon

John A. Kitzhaber, MD, Governor

Parks and Recreation Department
State Historic Preservation Office
725 Summer St NE, Ste C
Salem, OR 97301-1266
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Fax (503) 986-0793
www.oregonheritage.org

Nature HISTORY Discovery

December 5, 2011

Ms. Laureen Perry
Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825

RE: SHPO Case No. 10-2640
Klamath Dams Removal Study Proj NO. 09-KBAO-253
FOE/removal of 4 dams along Klamath River (Oregon & California)
Bureau of Reclamation
Multiple legals, Klamath County

Dear Ms. Perry:

I have reviewed the Environmental Impact Statement (EIS) dated September 2011, as it relates to above-ground historic resources. The EIS incorporates the findings of the Request for Determination of Eligibility and Historic Context Statement documents prepared by George Kramer in 2003, and includes potential measures for mitigating the adverse effects of the Klamath Dams removal.

I have no additional questions or concerns beyond what Dennis Griffin included in his letter dated November 30, 2011. I look forward to working with you, and others involved in the process, as the project progresses to develop a Memorandum of Agreement and/or Programmatic Agreement to address the adverse effects. If you need any additional information or comments from me prior to that time, please let me know.

Duplicate of OA_LT_1130_002

Sincerely,

Julie Osborne

Julie Osborne
Preservation Specialist
(503) 986-0661
Julie.Osborne@state.or.us

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CA_LT_1003_002

STATE OF CALIFORNIA — rnor

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September 29, 2011

Gordon Leppig
U.S. DOI and California Department of Fish and Game
619 Second Street
Eureka, CA 95501

RE: SCH# 2010062060 Klamath Facilities Removal Project Draft EIS/EIR: Siskiyou County.

Dear Mr. Leppig:

The Native American Heritage Commission (NAHC) has reviewed the Notice of Completion (NOC) referenced above. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA Guidelines 15064(b)). To comply with this provision the lead agency is required to assess whether the project will have an adverse impact on historical resources within the area of project effect (APE), and if so to mitigate that effect. To adequately assess and mitigate project-related impacts to archaeological resources, the NAHC recommends the following actions:

- ✓ Contact the appropriate regional archaeological Information Center for a record search. The record search will determine:
  - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the Native American Heritage Commission for:
  - A Sacred Lands File Check. . **USGS 7.5 minute quadrangle name, township, range and section required.**
  - A list of appropriate Native American contacts for consultation concerning the project site and to assist in the mitigation measures. **Native American Contacts List attached.**
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.
  - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

Sincerely,

Katy Sanchez
Program Analyst
(916) 653-4040

cc: State Clearinghouse

STATE OF CALIFORNIA—NATURAL RESOURCES AGENCY

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EDMUND G. BROWN, JR., *GOVERNOR*

CALIFORNIA COASTAL COMMISSION

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December 27, 2011

Elizabeth Vasquez
U.S. Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825

Gordon Leppig
California Department of Fish and Game
619 Second Street
Eureka, CA 95501

Subject: Klamath Facilities Removal DEIS/EIR

Dear Ms. Vasquez and Mr. Leppig:

The following comments on the Draft Environmental Impact Statement/Report for the proposed Klamath Facilities Removal project are provided by the California Coastal Commission.

Chapter 6 of the document states that "The removal of The Four Facilities would be subject to multiple federal and state statutes and local planning regulations. Table 6.1 lists the federal statute or requirement, the section it is described in, any relevant permits or processes required, and the status of compliance. Table 6.2 provides the regulatory requirements of the State of California . . . ." Table 6.1 lists the Coastal Zone Management Act and states that the relevant permits and processes are the EIS/EIR and a coastal zone consistency certification. Table 6.2 lists the California Coastal Management Act and states that the relevant permits and processes are a consistency determination.

Chapter 6 also states that "Some questions remain over the ultimate applicability of local regulations depending on the selection of the Dam Removal Entity (DRE)(responsible for dam deconstruction) or Hydropower Licensee (responsible for taking over the dams and operations). Future environmental analysis and compliance documentation of the Definite Plan and the Klamath Basin Restoration Agreement (KBRA) will specify the applicable regulations with greater certainty once the selection of the Dam Removal Entity or hydropower licensee is made."

These comments serve to clarify the potential regulatory role of the California Coastal Commission given the present uncertainty of the proposed project and the implementing and/or

permitting federal agency. If the Klamath Facilities Removal project becomes a federal agency activity (e.g., Bureau of Reclamation, Corps of Engineers) which would affect the coastal zone (notwithstanding the activity's location inland of the coastal zone), then it is the federal agency's responsibility for complying with federal Coastal Zone Management Act (CZMA) federal consistency requirements (i.e., prepare and submit to the California Coastal Commission a consistency *determination*).

However, if the Klamath Facilities Removal project becomes a non-federal agency activity and a federal agency is issuing a permit or license or authorization to another entity, then that entity is responsible for CZMA compliance (i.e., prepare and submit to the California Coastal Commission a consistency *certification*); in addition, the federal agency cannot issue the permit/license/authorization until the Commission has concurred with the consistency certification. Under this scenario, because the project is located inland of the coastal zone, the Commission would first need to obtain permission from NOAA's Office of Ocean and Coastal Resource Management (OCRM) to review the project under the CZMA. This permission would be sought once the Commission receives notice that an application has been made to a federal agency for the non-federal agency project. This scenario would also be applicable should the Klamath Facilities be retained and a hydropower licensee apply for federal authorization (e.g., from the Federal Energy Regulatory Commission) to take over the Klamath River hydropower facilities and operations (i.e., a consistency certification would need to be prepared by the proposed hydropower licensee and submitted to the Coastal Commission, should the Commission be granted permission by OCRM to review the proposed hydropower license).

Therefore, the Commission suggests that: (1) the language in Table 6.1 be modified to state that the relevant permits and processes are the EIS/EIR and a **consistency determination or consistency certification**; and (2) the language in Table 6.2 be modified to state that the statute is the **California Coastal Act** and the relevant permit and processes are a **consistency determination or consistency certification**.

While the Commission staff has not been able to comprehensively review the voluminous DEIS/R, our review of the Executive Summary and selected chapters indicates that the preferred alternative (removal of dams and related facilities) would improve and protect coastal resources, particularly water quality, fisheries, aquatic habitat, recreation, and archaeological resources. As stated in our July 21, 2010, comment letter to the Bureau and the Department on the Notice of Intent and Notice of Preparation to prepare an EIS/EIR for implementing the Klamath Hydroelectric Settlement Agreement, the Commission staff believes that the removal of the PacifiCorps dams on the Klamath River would affect the coastal zone and will require Commission review of a federal consistency determination (if the project is a federal activity) or a consistency certification (if the project is licensed, permitted, or assisted by a federal agency). The federal consistency submittal should include a finding that the proposed project is consistent with the California Coastal Management Program and should contain sufficient information for the Commission to assess the project's effect on the coastal zone.

Please contact me at (415) 904-5288 or lsimon@coastal.ca.gov should you have any questions regarding the preparation and submittal of a consistency determination or certification.

Sincerely,

Larry Simon
Federal Consistency Coordinator

cc: Robert Merrill, CCC – North Coast District

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

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EDMUND G. BROWN JR., *Governor*

DEC 2 9 2011

Ms. Elizabeth Vasquez
Bureau of Reclamation
2800 Cottage Way
Sacramento, California 95825

Mr. Gordon Leppig
California Department of Fish and Game
619 Second Street
Eureka, California 95501

SCH #2010062060, Public Draft Environmental Impact Statement/Environmental Impact Report for the Klamath Facilities Removal Project
Siskiyou County

We have reviewed the subject report addressing the potential environmental impacts which would result from the removal or alteration of four dams on the Klamath River. Three of the four dams are located in northern California and the fourth is in southern Oregon. All three dams in California are under our jurisdiction for dam safety; they include Copco No. 1, Copco No. 2, and Iron Gate, Dam Nos. 91, 91-2, and 91-3 respectively.

The study outlines five alternatives, including a No Action/No Project Alternative. Alternative 2, Full Facilities Removal of Four Dams (the proposed action) and Alternative 3, Partial Facilities Removal of Four Dams (to allow free-flowing river conditions), would both require removal applications for each of the three dams located in California. Alternative 4, Fish Passage at Four Dams, would require an alteration application for each of the three dams located in California. Alternative 5, Fish Passage at J.C. Boyle and Copco No. 2 along with the Removal of Copco No. 1 and Iron Gate, would require an alteration application for Copco No. 2 and removal applications for Copco No. 1 and Iron Gate.

All applications must be submitted to the Division of Safety of Dams together with plans, specifications, and the appropriate filing fees. All dam safety related issues must be resolved, and the applications must be approved prior to commencing construction. Sharon Tapia, our Design Engineering Branch Chief, is responsible for the application process and can be reached at (916) 227-4660.

If you have any questions or need additional information, you may contact Office Engineer Randy Fessler at (916) 227-4601 or Regional Engineer Y-Nhi Enzler at (916) 227-4604.

Sincerely,

Michael Waggoner

Michael G. Waggoner, Chief
Field Engineering Branch
Division of Safety of Dams

cc: Ms. Nadell Gayou
Resources Agency Project Coordinator
Environmental Review Section
Division of Statewide Integrated Water Management
901 P Street
Sacramento, California 95814

Governor's Office of Planning and Research
State Clearinghouse
Post Office Box 3044
Sacramento, California 95812-3044

AA.2 Local Agencies

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J. Duffy 1 of 3

Good Evening. I am Jill Duffy - former 5th District Humboldt County Supervisor. During my tenure on the Board, I represented Humboldt County on the Klamath Basin Fisheries Restoration Task Force, ~~the Trinity Adaptive Management Working Group~~ and Humboldt County during the ~~Klamath~~ 5 years Settlement Negotiations.

The Humboldt County Board of Supervisor's supports the efforts represented here this evening. The Board unanimously supported the KBRA in 2008, the KHSA in 2009, and unanimously approved to sign as a signatory to the KBRA & KHSA Agreements in February 2010. - Note Ryan + M Supervisor Lovelace attended last weeks' Yreka hearings to express the County's support, and the Board unanimously reiterated their support yesterday with a letter to Senators Feinstein, Boxer and Wyden encouraging their support for legislation to implement the KHSA and KBRA.

Fishery professionals and river advocates agree - the single best action we can take to protect and restore our fisheries is removal of Iron Gate, Copco 1, Copco 2 and JC Boyle dams. DEIS Alternatives 2 and 3 achieve that objective.

The KBRA provides a framework for fisheries and habitat restoration, fisheries re-introduction and long-term sustainability and monitoring that will allow for adaptive management to adjust during the next 50 years.

Humboldt County supports the KHSA and the KBRA because, together they result in dam removal *and* a comprehensive restoration plan that creates durable solutions in a region long afflicted by rotating environmental crises. Highlights include:

- Removal of the dams and subsequent reestablishment of basin connectivity and variable stream flows in the Klamath River which is expected to contribute significantly toward restoration of physical, chemical, and biological processes and interactions that are essential to a functional aquatic eco-system.

- The KBRA proposes to annually CAP water available to irrigators. Irrigators agreed to limit diversions in exchange for predictability of water deliveries and affordable power.

- The Klamath Area National Wildlife Refuge Manager released an analysis stating the KBRA will provide, for the first time in their 100 years of existence, a guaranteed and adequate water supply to the refuges, and make wildlife and refuge needs a legal co-equal purpose of the Klamath Basin Irrigation Project.

The fact that these agreements reflect compromises is a sign of strength. The settlement process brought together stakeholders with different interests to find practical solutions. Water users in the upper basin are important partners in this endeavor, and deserve support in

finding ways to sustain their livelihoods. Continued collaboration between public agencies, tribes, conservation groups, and private entities will be critical for it's success. I encourage those interested in Klamath restoration to strongly support the process laid out by these agreements. This DEIS/DEIR is a key milestone in this process, and is based on solid data and research by scientists and professionals. Humboldt County will submit a formal comment letter after we completed our review of the document.

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As Sheriff of Siskiyou County I'm most concerned about the impact this proposal has on public safety, health and welfare of the county's citizenry. I am also sworn to uphold and defend the U.S. and California Constitution. I have serious concerns that the KHSA & KBCA process has not complied with Constitutional mandates for example: 4th 10 and 14th Constitutional amendments are in question. Siskiyou County is one of the poorest county's in the state and we have one of the highest unemployment rates in the state and some of the worst alcohol abuse, drug abuse, child abuse, elder abuse and domestic violence cases in the state. Any negative impacts on agriculture, recreation, mining and other outdoor activities cannot be absorbed and will have a devastating impact on public safety, HEALTH, THE WELFARE OF OUR CITIZENS AND WILL ~~[illegible]~~ DESTROY A FRAGILE ECONOMY ~~[illegible]~~ We will lose STANDPOINT, WE ~~[illegible]~~ REDUCE FLOOD CONTROL AND WATER STORAGE TO FIRE suppression & agriculture and our citizens, pursuant to provisions of law like the National Environmental protection act which requires coordination and consistency to balance between the need to protect the natural as well as the natural environment

and our citizens livelihoods and way of life is being threatened the future of their children are threatened.

and we will pay more for power.

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BOARD OF SUPERVISORS

COUNTY OF HUMBOLDT

825 5TH STREET

EUREKA, CALIFORNIA 95501-1153 PHONE (707) 476-2390 FAX (707) 445-7299

November 15, 2011

Elizabeth Vasquez
U.S. Department of the Interior, Bureau of Reclamation
2800 Cottage Way, Sacramento, CA 95825

Gordon Leppig
California Department of Fish & Game
619 Second Street
Eureka, CA 95501

RE: Comments from Humboldt County Board of Supervisors on Klamath Facilities Removal Draft Environmental Impact Statement/Environmental Impact Report

Dear Ms. Vasquez and Mr. Leppig:

The Humboldt County Board of Supervisors appreciates the opportunity to comment on the Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for Klamath Facilities Removal, released September 21, 2011, as a joint environmental document for compliance with the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA).

The EIS/EIR analyzes the potential impacts from the proposed removal of the four lowermost dams on the Klamath River, as proposed in the Klamath Hydroelectric Settlement Agreement (KHSA), along with implementation of the Klamath Basin Restoration Agreement (KBRA) and the proposed transfer of the Keno Dam from PacifiCorp to the Department of the Interior. Humboldt County was one of 28 signatories to the KHSA and KBRA in February 2010, and in June 2010 we became a cooperating agency with the Bureau of Reclamation for development of the EIS/EIR.

The purpose of this EIS/EIR is to support the decision by the Secretary of the Interior, scheduled for March 2012, whether removal of the four lowermost dams on the Klamath River will advance restoration of salmonid (salmon, steelhead, and trout) fisheries of the Klamath Basin and is in the public interest, which includes consideration of potential impacts on affected local communities and Tribes; and, if the decision by the Secretary of the Interior is affirmative, to support the subsequent decision by the Governor of California whether or not to concur.

The Board recognizes that for purposes of CEQA, the analysis of the KBRA was programmatic and based on the best available information, and that future KBRA projects may require additional, project-specific environmental analysis which will be tiered to this EIS/EIR as appropriate.

Humboldt County is one of several communities that continue to be adversely affected by the current impaired conditions in the Klamath basin. Humboldt County and other coastal counties in northern California and southern Oregon have historically been dependent upon a healthy Klamath River and its fisheries. Over the past 60 years we have experienced a decline of once-abundant Klamath stock, loss of commercial processing facilities, the progressive decimation of our salmon fishing fleet and emptying of our harbors, and suffering among the families in our fishing communities.

Humboldt County's Preferred Alternative

The Humboldt County Board of Supervisors strongly supports Alternative 2 as identified in the EIS/EIR, which consists of full removal of the four lowermost dams and all their features, along with implementation of the KBRA and ownership transfer of the Keno Dam. We believe that Alternative 2 best meets the objectives of providing a free-flowing river and volitional fish passage for all Klamath River anadromous species are established as outlined in the KHSA.

The Humboldt County Board of Supervisors supports full removal of the four lowermost dams because the resultant reestablishment of basin connectivity and variable stream flows is expected to contribute significantly towards restoration of physical, chemical, and biological processes essential for a functional aquatic ecosystem. Anadromous fish will have access to hundreds of miles of spawning and rearing habitat, and cold-water refugia associated with springs and cold tributaries throughout the basin. Additionally, removal of the dams will restore more natural flow variation and sediment transport.

Our Board recognizes that Alternative 3 would also meet these objectives, by providing for partial removal of the four lowermost dames. We also recognize that Alternative 3 has the advantages of less temporary construction-related impacts and lower upfront costs. However, these can only be seen as advantages if the remaining features of the dams are presumed to be allowed to remain forever, until they crumble and fall under their own weight over time. Leaving these structures indefinitely would create an eyesore, a health and safety risk and an attractive nuisance. Over time, these structures would become an increasing liability, necessitating their eventual removal. To come back in at some future date to finish the job would almost certainly carry a higher ultimate price tag and more environmental impacts than to just to the job right the first time. The Board understands that each of these alternatives meets the objectives for dam removal outlined in the KHSA. However, Alternative 2 has the advantage of providing for more complete restoration of the dam facility areas and avoiding future operation and maintenance costs. For these reasons, the Humboldt County Board of Supervisors supports Alternative 2 as the preferred alternative in the EIS/EIR. Our

Board is also willing to accept Alternative 3, but we see it as a less-preferable, and incomplete, option.

Socioeconomics

Section 3.15 of the EIS/EIR describes the socioeconomic effects of the analyzed alternatives, including potential changes to economic output, labor income, and employment as well as fiscal effects on local governments. The EIS/EIR correctly states that the local economy of Humboldt County, among others, is linked to the Klamath River through fishing, recreation, and tourism. Both Alternatives 2 and 3 would have beneficial economic effects on commercial ocean fishing, recreational ocean and in-river fishing, and tribal harvest. For commercial ocean fishing of Chinook salmon, the EIS/EIR states that Alternatives 2 and 3 will cause an increase of $13.4 million (2012 dollars) per year of economic output for the coastal region from central California to northern Oregon and generate a total of 453 new jobs. Residents and businesses in 12 coastal counties (Del Norte, Humboldt, Mendocino, Sonoma, Marin, San Francisco, San Mateo, Santa Cruz, and Monterey Counties in California; Lane, Douglass, and Coos Counties in Oregon) will benefit from improved commercial and sport fishing opportunities and reduced risk of fishery closures and economic disruption.

The Board wishes to underscore that implementation of the agreements will provide a significant boost for sustainable jobs and economic productivity for Humboldt County and other coastal counties. We believe the analysis in the EIS/EIR likely underestimates this economic benefit. For a more comprehensive analysis of the direct and indirect economic benefits that would result from implementation of the KHSA and KBRA, we highlight the following studies:

- Peterson, John et al. December 31, 2010. North Coast Pre-MLPA Community-Based Socioeconomic Characterization and Risk Assessment. Technical report prepared by Impact Assessment, Inc. for the County of Humboldt Headwaters Fund.

- Hackett, Steven, and Hansen, Doreen. October 3, 2008. Cost and Revenue Characteristics of the Salmon Fisheries in California and Oregon. Technical report prepared for the National Marine Fisheries Service.

- Gallo, David. October 8, 2010. Economic Impact of the Klamath Settlement Agreements with a Focus on the Impact of Restoration and Construction Activity on the Economies of Del Norte, Humboldt, Klamath, and Siskiyou Counties. Technical report prepared for PROSPER and Trout Unlimited.

Further, it is important to note that the EIS/EIR provides limited historical economic comparisons to document the economic losses that Humboldt County and other counties have suffered due to impaired fisheries. Coastal communities have lived with the environmental, economic, and social impacts of the Klamath dams and excessive water diversions for decades. Dams and excess diversions have taken the natural wealth of the

river and redistributed the benefits disproportionately to the upper basin. Implementation of the KHSA and KBRA through Alternatives 2 or 3 of the EIS/EIR will help restore equity and fairness in the distribution of economic and social benefits for communities that depend on the Klamath River.

Conclusion

The Klamath Facilities Removal Draft EIS/EIR demonstrates that the positive benefits of the Klamath settlement agreements on the resources of the Klamath basin vastly outweigh any potential adverse effects. The Humboldt County Board of Supervisors expresses its support for Alternative 2 (Full facilities removal with KBRA implementation and Keno Dam transfer) as the preferred option, and also support for Alternative 3 (Partial facilities removal with KBRA implementation and Keno Dam transfer).

The Humboldt County Board of Supervisors appreciates the work and effort that has gone into the development of the EIS/EIR and the associated technical reports. We remain committed to supporting the Klamath settlement agreements, maintaining the underlying partnerships, and assisting with implementation over the next 50 years.

Please contact Hank Seemann or Jill Duffy at (707) 445-7741 for questions or to request additional information.

Sincerely,

Mark Lovelace, Chair
Humboldt County Board of Supervisors

ML:kh

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Submitted by Mike Mallory Assessor-Recorder (1/12)

As Siskiyou County Assessor-Recorder I feel that I have an obligation to express my grave concerns with the "Dam Removal Real Estate Evaluation Report" as incorporated into the EIS / EIR.

I was involved in this process early on (7/10) by opening my office to the Real Estate Team, and providing all publically available information such as sales, property characteristics, and maps at no cost. Also gave them ~~permission~~ the ability to work with my appraisal staff if they had questions regarding the many nuances associated with the different geographic areas of the County. Felt pretty good about mtg.

I believe the Team carefully orchestrated this study to lead to a minimal value impact from dam removal, amounting to a paltry $2.7M to owners, and impact to the Tax Roll at $2.2M. This was accomplished by way of an 11 page Statement of Work which gave the contract appraiser little latitude to utilize his expertise (MAI, the highest designation). I say this because:

- The April 2008 valuation date, intended to coincide with Interior Secretary Salazar's "Secretarial Determination" is at least 2 years too late. Talk of dam removal was affecting values back in 2005 or 2006, especially for improved properties.
- Structural and site improvements were specifically excluded from the analysis, where direction was given to analyze only the underlying land. This conveniently excluded properties for the greatest potential for value loss. I liken this to going to the dentist for a root canal, but you end up getting your teeth cleaned.
- The Team provided the roster of parcels to be appraised, with 1,467 "Potentially Impacted Parcels" later narrowed down to 668 "Impacted Parcels." The determination of impacted parcels should have been the sole responsibility of the contracting appraiser.

Mike Mallory (2 of 2)

- Valuation in the "After" condition was made under the hypothetical assumption that the dams had been removed, and the land underlying the lakes had been restored to its native condition. Restoration will take many years, and it is very questionable if the land could ever be restored to any semblance of its pre-dam state. Valuation as of when mud flats appear
- The appraisal completely ignores value reduction to properties located on the main stem of the Klamath river below the dams, due to the perceived loss of flood control if the dams are removed. Also, this ignored the affects of silt deposition potentially changing the river channel, leading to more severe flooding.

Conclusion: A predetermined outcome of minimal value impact was realized!

I wish to make it clear that I am not criticizing the contract appraiser, who did his job within the strict confines of the 11 page SOW. In talking w/ him sensed it ~~I am thinking that~~ it was probably one of his more difficult appraisal assignments. ~~In talking with~~ the contract appraiser, ~~he stated that~~ she did confide in me that he was surprised that I was not involved in the review process.

After several assurances that I would be provided with the appraisal earlier this summer, I had the honor of receiving it on September 19th, just 2½ days prior to its scheduled release. Simply provided as "lip service."

As an elected official I am furious that I was not afforded the professional courtesy of knowing the scope of the appraisal assignment, which was deliberately withheld from me until the 11th hour. I have made the strong statement to my Board of Supervisors that I was deceived in this process, and I still stand by that statement. Had the team been up front with me, things would have been much different!

((Not worth the paper it's printed on Keeps coming to mind

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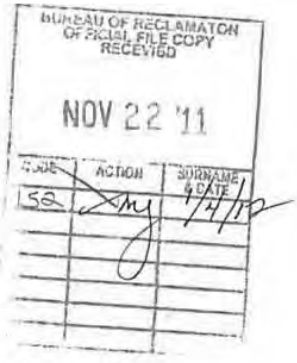
City of Yreka
701 Fourth Street • Yreka, CA 96097
(530) 841-2386 • FAX (530) 842-4836

Yreka City of

KLAMATH



November 17, 2011

Ms. Elizabeth Vasquez
Bureau of Reclamation
2800 Cottage Way
Sacramento, California 95825

Re: Klamath Facilities Removal Public Draft
Environmental Impact Statement/Environmental Impact Report – City of Yreka Comment

Dear Ms. Vasquez:

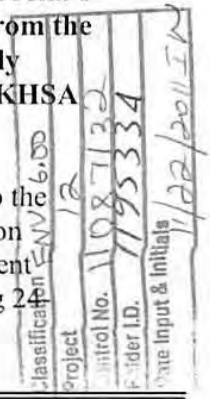
On behalf of the City of Yreka, and pursuant to the notification posted in the Federal Register on September 22, 2011, 76 Fed.Reg. 184, this letter addresses to you the Comments on the Draft Environmental Impact Statement/Draft Environmental Impact Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon.

OVERVIEW

The City of Yreka is commenting in these proceedings to protect the City's interest in its water rights, public water supply and associated facilities near the PacifiCorp powerhouse at Fall Creek. By commenting, the City wants to make certain that the Secretary's Determination satisfies NEPA/CEQA, particularly with respect to the undertakings identified in the Klamath Hydroelectric Settlement Agreement ("KHSA") for the benefit of the City of Yreka. While it is true the City has consistently supported PacifiCorp's application for re-licensure of its project facilities and has urged selection of various of the proposed alternatives so long as the impacts to the City's water rights, facilities and supply are appropriately considered and mitigated, throughout the process dealing with the Klamath issues, the concerns of the City of Yreka have been respected, viz., to keep the City of Yreka's water supply viable.

The EIS/EIR acknowledges this commitment for the benefit of the City of Yreka at page 1-22, Chapter 1, Introduction: "**Signatories [of the KHSA] agree not to prevent the use of Yreka's Water Rights permit and will study the potential risks to the water supply system from the facilities removal. Necessary actions for the continued use of the Yreka water supply infrastructure would be funded and implemented as part of implementation of the KHSA** (Section 7.2.3.)." (emphasis added).

The KHSA provides at Section 7.2.3 that an engineering assessment studying the risks to the City's water supply facilities would be conducted and funded by the Secretary. At Section 7.2.3.B, it states that actions "that may be required as a result of the engineering assessment **include, but are not limited to: relocation, replacement and/or burial**" of the existing 24-



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inch water line. (emphasis added). The City contends that (1) this provision means that all pipeline relocation alternatives will be identified and studied, and (2) that the decision of the pipeline relocation alternative is for the Secretary of the Interior as part of his Determination in consultation with the City of Yreka. That means, that the pipeline relocation alternatives must all be part of the Project Description and should be reflected in the Proposed Action and all Alternatives, as well as in the mitigation measures of the EIS/EIR.

This is no gift horse. If the City of Yreka is truly a beneficiary of the KHSA Section 7.2.3, then the City has standing to make the following comments, require changes in the Proposed Action and Alternatives, and request the necessary mitigation measures. But, incredibly, the City was not consulted regarding the Proposed Action or the Alternatives which contemplate reconstruction of the City's water pipeline as an aerial bridge. The Proposed Action and Alternatives 2 and 3 will intrude upon the City's sovereign and corporate possessory interests. (California Constitution, article X, Section 2; California Water Code Section 106.5). At minimum, the City should be afforded the opportunity to participate in the design and approval of plans, construction inspection and final acceptance of any improvements affecting its water system.

Accordingly, the City of Yreka contends the Draft EIS/EIR is inadequate for the following reasons:

1. The Proposed Action and Alternatives 2 and 3 are inadequate because it fails to consider or analyze all pipeline relocation alternatives, in disregard of the requirements of KHSA Section 7.2.3.B.

2. The EIS/EIR does not consider the impacts of the proposed action or alternatives upon:
    a. the cathodic field protecting the City of Yreka water pipeline
    b. the water rights of the City of Yreka (as they are described in Technical Report SRH 2011-2)

This lack of consideration impacts the integrity of the City of Yreka's water right and water supply, and does not fulfill the requirements of KHSA 7.2.3.

3. The mitigation measures identified in the EIS/EIR are inadequate because they were developed without complying with the requirements of KHSA 7.2.3.

The City Council has authorized joinder by the City in the Comment of the County of Siskiyou (City Council, City of Yreka, Resolution 2939, dated November 3, 2011, Exhibit "F"). Accordingly, the Comment of the County of Siskiyou is incorporated and adopted as the Additional Comments of the City of Yreka. The City further submits, as discussed below, that the EIS/EIR has insufficient information supporting a determination that the Proposed Action (number 2) or Alternatives 3 or 5 are feasible or should be implemented at all. It is inappropriate and unreasonable to burden the City of Yreka and its residents with any requirements or costs related to this Project. Our detailed comments are set forth below, and for these reasons, the City urges that the EIS/EIR must be revised and recirculated.

I. CEQA and NEPA Compliance

An accurate project description is the *sine qua non* of an EIR. *Maintain Our Desert Environment v. Town of Apple Valley (Pluto Development),* (2004) 120 Cal.App.4th 430.

As pointed out in the Overview, the KHSA at Section 7.2.3.B provides: "As part of implementation of this Settlement, an engineering assessment to study the potential risks to the City of Yreka's water supply facilities as a result of implementation of Facilities removal shall be funded and conducted by the Secretary. ... Actions that may be required as a result of the engineering assessment include, but are not limited to: (i) Relocation, replacement, and/or burial of the existing 24-inch diameter water line and transmission facilities from the City of Yreka's Fall Creek diversion;..." . This obligation was likewise recognized in the Klamath Basin Restoration Agreement (KBRA) at Section 26.2.1.

Nonetheless, **no consideration** has been given nor any analysis provided of burial of the existing 24-inch diameter line, nor any explanation why this is not explored except as a cursory reference in Chapter 2, page 2-29, which states: "reconstructing further underground would be complicated and expensive...". Consideration of burial of this pipeline cannot be dismissed merely because it may be more costly than an aerial bridge. There are many reasons why burial is important to consider and should be considered because of the vulnerability of an aerial pipe and the unintended and undeveloped effects of an aerial bridge upon the existing City of Yreka water system, and the visual considerations in a restored river channel. (Letter of Paul J. Reuter, Managing Engineer, Pace Engineering, attached hereto as Exhibit "A".) As a consequence, all alternatives for pipeline relocation should be considered as part of the Project and all Alternatives; without this analysis, the Project description is deficient, and, accordingly, the EIS/EIR is incomplete.

The California Environmental Quality Act requires environmental accountability throughout the planning and decision-making stages of major development. 14 Cal. Code Regs. § 15001 *et. seq.*; Cal. Pub. Res. Code §§ 21000, 21001. Similarly, NEPA requires that the federal agencies "consider every significant aspect of the environmental impact of a proposed action ... [and] inform the public that [they have] indeed considered environmental concerns in [their] decision-making process[es]." 42 USCA § 4321, et seq., *Earth Island Institute v. U.S. Forest Service,* 351 F.3d 1291, 1300 (9th Cir. 2003) (citations omitted). A pre-determined or pre-ordained decision violates 40CFR1505.5(3)(e).

CEQA should be "scrupulously followed" so that "the public will know the basis on which its responsible officials either approve or reject environmentally significant action" and therefore, find themselves in a position to "respond accordingly to action with which it disagrees." *Laurel Heights Improvement Association v. Regents of the University of California,* 47 Cal.3d 376, 392 (1988). If CEQA is scrupulously followed, the public will know the basis on which its responsible officials either approve or reject environmentally significant action, and the public, being duly informed, can respond accordingly to action with which it disagrees. *Laurel Heights,* 47 Cal.3d at 392.

II. The EIS/EIR Fails to Comply with NEPA and CEQA

There are deficiencies in the EIS/EIR which fail to meet the requirements of CEQA and NEPA in a number of respects, as discussed more fully below:

A. The Project description is incomplete and the EIS/EIR is thus inadequate, which prevents meaningful public review;
B. The EIS/EIR fails to meet its purpose as there is inadequate analysis of alternatives to the Project.
C. The analysis of the Project's impacts and discussion of means to mitigate those impacts are inadequate, particularly with respect to the City of Yreka's water right and water supply, and facilities; and,
D. There has been improper segmenting of the Project by failure to analyze the environmental effects of portions of the KBRA.

As a consequence, a complete revision and redistribution of the EIS/EIR is required. As a joint EIR and EIS, the document must also comply with the corresponding provisions at the federal level under NEPA.

A. The Project description is incomplete and the EIS/EIR is thus inadequate, which prevents meaningful public review.

Compliance with the EIR provisions of CEQA serves the important purpose in enabling the public to make its own "independent, reasoned judgment" about a proposed project's environmental impacts. *Emmington v. Solano County Redevelopment Agency* (1987) 195 Cal. App.3d 491, at 503; Pub. Res. Code § 1520. Information relevant to significant effects of a project and the mitigation measures must be made available to the public as soon as possible by a lead agency so that the public may prepare and submit comments in a timely manner. Pub. Res. Code § 21003.1. Public comments are a vital part of the EIR. *Sutter Sensible Planning, Inc. v. Board of Supervisors* (1981) 122 Cal.App.3d 813, 820.

The adequacy of the project description is linked to the adequacy of the environmental analysis; if the description fails to discuss the complete project, the environmental analysis will probably reflect the same mistake. *Dry Creek Citizens Coalition v. Tulare County (Artesia Ready Mix Concrete)* (1999) 70 Cal.App.4th 20. An inadequate project description can lead to a 'fallacy of division' resulting from overlooking the project's cumulative impacts by separately focusing on isolated parts of the whole. *San Joaquin Raptor/Wildlife Rescue Center v. Stanislaus County (Arambel & Rose Development)* (1994) 27 Cal.App.4th 713.

As cited in Exhibit "B", City of Yreka Scoping Comment Letter, July 20, 2010, the purpose of the Project statement is to refine the alternatives which should be analyzed (40 CFR 1502.13), however, by qualifying the removal of the dams "to achieve a free-flowing condition and allow full volitional passage of fish" the Project predetermines the outcome. This conclusion is demonstrated by the fact that Alternative 11 was discarded as "not meeting consideration".

(Klamath Settlement Agreement Alternatives Report, EIS/EIR, Chapter 4, Alternatives Screening.) This deprives the public and the City of meaningful review. Moreover, as cited in the Letter of Paul J. Reuter, Managing Engineer, Pace Engineering, attached hereto as Exhibit "A", the project description does not include any evaluation or analysis of the burial of the City' water pipeline. This likewise deprives the public and the City of meaningful review.

Under CEQA, a "project" is "an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and which is any of the following: (a) An activity undertaken by any public agency...." (§ 21065.). This Determination is an action undertaken by a public agency. The statutory definition of a CEQA project is "amplified in the Guidelines" [*Association for a Cleaner Environment v. Yosemite Community College District* (2004) 116 Cal.App.4th 629, 637, which define a "project" as "*the whole of an action,* which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment...." (Guidelines, § 15378, subd. (a), italics added.) "To maximize environmental protection, the concept of a 'project' is broadly defined under CEQA. [Citation.]" *San Lorenzo Valley Community Advocates for Responsible Education v. San Lorenzo Valley Unified School Dist.* (2006) 139 Cal.App.4th 1356, 1377. "The term 'project' refers to the activity which is being approved and which may be subject to several discretionary approvals by governmental agencies. The term 'project' does not mean each separate governmental approval." (Guidelines, § 15378, subd. (c).)

City contends that the whole of the project includes all elements of KHSA Section 7.2.3.B, including an assessment of **all of** the pipeline relocation alternatives. The engineering assessment has clearly not included an evaluation of pipeline relocation alternatives other than in an entirely dismissive way. By failing to conduct an analysis of all of the pipeline relocation alternatives, one of the components of KHSA 7.2.3.B, the EIS/EIR improperly implements the KHSA, because KHSA Section 7.2.3. B specifically contemplates a **study of all possibilities** on reconstruction of the City's waterline, not just an aerial pipeline. It wasn't necessary, and is inappropriate, to evaluate only one means of reconstructing the City of Yreka water pipeline. Clearly, burial of the pipeline as part of the Project description would have a potential for direct or indirect physical change in the environment and evaluation of this as part of the Project needs to be done for complete environmental review, even if all alternative pipeline relocation concepts are mutually exclusive. The project description for a single EIR may consist of two very different development projects if they have essentially the same impacts. *Neighbors of Cavitt Ranch v. Place County (Bayside Covenant Church)* (2003) 106 Cal.App.4th 1092.

There is no evidence that the burial of the water pipeline was evaluated and discarded as infeasible. 'Feasible' means being capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, legal, environmental, social and technological factors. Public Resources Code Section 21061.1; Guidelines Sections 15021(b), 15131(c), 15364. Feasibility is judged against the rule of reason. *Citizens of Goleta Valley v. Santa Barbara* County (1990) 52 Cal.3d 553. As the Pace Engineering letter, Exhibit "A", demonstrates, burial of the pipeline **is feasible.** Burial of pipeline is common practice, which can

be accomplished by readily available engineering. Because all possibilities on reconstruction were not considered in the EIS/EIR, the Project description is incomplete and therefore the EIS/EIR is inadequate.

B. The EIS/EIR fails to meet its purpose as there is inadequate analysis of alternatives to the Project.

The whole point of KHSA Section 7.2.3 is to protect the water right and the water supply of the City of Yreka. To the extent that action must be included in the Proposed Action and any of the alternatives, the purpose of the Project becomes the protection of the City's water right and water supply. The City provided ample information in its Scoping Comment Letter (Exhibit "B") regarding its concerns. However, without consultation with the City or any analysis in depth in the EIS/EIR or its supporting reports, it is proposed that:

> ***"The existing water supply pipeline ...to be relocated prior to the decommissioning of the reservoir ... will either be suspended from a pipe bridge across the river near its current location, or rerouted along the underside of the Lakeview Bridge just downstream of Iron Gate Dam." EIS/EIR page*** *3.21-14, Section 3.21.*

Bringing the reconstruction of the City's water pipeline into the Proposed Action and Alternatives without consulting the City, and contrary to the requirements of KHSA or of CEQA, or considering the City's concerns is not only wrong, it nullifies the validity of this EIS/EIR.

The primary purpose of an EIR is to make available for the public an "informational document." *Planning and Conservation League et. al. v. Castaic Lake Water Agency*, (2009) 180 Cal.App.4th 210. The EIR document must include an analysis of the direct, indirect, and cumulative effects of a proposed project while identifying various means and methods to minimize the project's impacts through the consideration of reasonable alternatives to the project. 14 Cal. Code Regs. § 15121.

Courts view an EIR as an "environmental 'alarm bell' whose purpose is to alert the public and its responsible agencies to environmental impacts ***before*** they have reached the ecological point of no return" (emphasis added). *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810; *Santiago County Water Dist. v. County of Orange* (1981) 111 Cal.App.3d 818, 822. The EIR process is intended to "demonstrate [to] an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." *No Oil Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 86; CEQA Guidelines § 15003, subd. (d).

As for NEPA, there is a similar standard. The EIS document must ensure that environmental information is available to decision-makers and public citizens "*before* decisions are made and ***before*** actions are taken." 40 C.F.R. §1500,1(b) (emphasis added). A heightened level of governmental accountability and public participation is guaranteed, through the assurance "... [i]mportant environmental consequences will not be 'overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast.' In short, NEPA

requires that the evaluation of a project's environmental consequences take place early in the project's planning process." *North Buckhead Civic Assn v. Skinner*, (11th Cir. 1990)903 F.2d 1533, 1539-40.

C. The analysis of the Project's impacts and discussion of means to mitigate those impacts are inadequate, particularly with respect to the City of Yreka's water right and water supply, and facilities.

The EIS/EIR conspicuously omits or excludes evaluation or analysis of:

- Relocation alternatives for the impacted Yreka water supply pipeline.
- Relocation alternatives for the cathodic field.
- Destruction of the cathodic field by accident, flood or otherwise.
- Removal of the City's water supply line to Lakeview Bridge.
- The Project Description does not identify or analyze the required land acquisitions or permit approvals for relocation of the pipeline and related environmental review and consultation requirements that action would invite. Guidelines Section 15124.

The Letter of Paul J. Reuter, Managing Engineer, Pace Engineering, attached hereto as Exhibit "A" describes the importance of the cathodic field to the integrity of the City's water pipeline. This field protects the pipe from corrosion. (Steve Neill, Public Works Director, City of Yreka, November 16, 2011). Omission of consideration of this element of the City's water system amounts to a failure to include relevant information and precludes informed decision making and informed public participation thereby thwarting the statutory goals of the EIR process. *Al Larson Boat Shop, Inc. v. Board of Harbor Commissioners,* 18 Cal.App.4th 729, 748 22 Cal.Rptr.2d 618 (1993). The EIS/EIR must be revised to fully describe the Project and comprehensively evaluate its environmental impacts if it is to pass muster under the law.

D. There has been improper segmenting of the Project by failure to analyze the environmental effects of portions of the KBRA.

Agencies may not improperly "segment" projects within the preparation of an EIR by arbitrarily limiting the analysis of the proposed actions (and their effects) to discrete issues or geographic regions. According to CEQA Regulations, the EIR must describe the entirety of the project, including all "reasonably foreseeable" future actions and activities that are part of a project, and it must analyze the impacts of all of those reasonably foreseeable actions. 14 Cal. Code Regs. § 15378. *Thomas v. Peterson*, 753 F.2d 754, 758 (9th Cir. 1985); *Laurel Heights*, 47 Cal.3d. 376-395 (1988).

"Segmentation" occurs when the project description fails to encompass the scope of the entire project's impact" by improperly dividing the project into discrete parts. *Thomas*, 753 F.2d at 758. Segmented or piecemeal analysis improperly divides a project into multiple discrete "actions", each of which may individually and deceptively appear to result in an insignificant environmental impact. *Natural Resources Defense Council v. City of Los Angeles*, (2002) 103 Cal.App.4th 268, rehearing den. 11-18-02; review denied 12-18-02. Only when those same

actions are analyzed as a collective whole does the full range and cumulative intensity of the project's environmental impact become illuminated.

The omission of key parts of a project from an EIR analysis serves to hide the important ramifications of a project from view during the public discussion and approval period and beyond. By obscuring the true aggregated impact of a comprehensive project proposal, segmentation frustrates the core goals of CEQA and NEPA to ensure sustainable development practices for the preservation of our environmental heritage. *Santiago County Water Dist. v. County of Orange* 118 CA.3d., 828-830 (1981). This applies in the federal context as well. The CEQ Guidelines require agencies to implement an expanded scope of review for certain cases that involve two or more "connections," "cumulative," and similar" actions within a single EA or EIS. 40 C.F.R. § 1508.25.

By omitting the development of all of the terms of the KHSA Section 7.2.3, the EIS/EIR is improperly segmenting the project. Also, deferral of future evaluation eliminates critical information relevant to this decision. A public agency may not divide a single project into smaller individual projects in order to avoid its responsibility to consider the environmental impacts of the project as a whole. *Cleaner Environment v. Yosemite Community College District* (2004) 116 Cal.App.4th 629. The engineering assessment has clearly not included an evaluation of pipeline relocation alternatives other than in an entirely dismissive way. City contends that the whole of the project includes all elements of KHSA Section 7.2.3, and therefore the Project description, alternatives, and mitigation measures must reflect this.

III. Comments on the EIS/EIR – Proposed Project, Alternatives and Mitigation Measures

The Proposed Action and Alternatives 3 and 5 include only a single design modification to the City of Yreka's water supply system, in particular the re-location of the 24-inch wide water transmission line from the bed of the Klamath River to an aerial bridge, which location varies within the EIS/EIR document. Reasonable alternative locations and alignments of pipeline (e.g. go underground) have not been explored in this document, nor are they explored in the studies supporting the document, nor have they been explored with the City.

The City provided information to United States Bureau of Reclamation staff regarding the City of Yreka water system during the period from August 2010 to early November 2010. In that time, the City was informed that USBR was looking at a new pipe bridge (similar to what Grants Pass has over the Rogue River) or perhaps an HDPE pipeline installed in trench excavated underwater before reservoir is drawn down." (USBR Tom Hepler, correspondence 10-5-2010). The City responded that a pipe crossing in case the dams were removed had been explored and the City's engineers had recommended "that we not go over the river because of the height requirements that need to be considered to withstand flood conditions." (City of Yreka Water Manager, Rob Taylor, correspondence 10-25-2010). No further communication occurred. At no time was the City engaged or asked about any of the designs on water line realignment called a "pipe bridge" or its re-location. Exhibit "G", correspondence between City of Yreka Water Manager Rob Taylor and USBR staff

member Tom Hepler, August 24, 2010, through October 27, 2010. **To the contrary, all preliminary indications to the City and communications with the City favored pipeline burial. The level of protection the Proposed Action proposes for the pipeline is grossly inadequate.**

Moreover, a pipe crossing of the Rogue in an urban area presents vastly different issues than a pipe crossing of the Klamath in a remote and sparsely populated area. A pipe bridge will create an attractive nuisance and expose the City to liability for resulting injuries. This location is remote and sparsely populated. It is a foreseeable use of such a structure that persons will attempt to cross or climb upon such a structure for entertainment or for adventure. So long as user of municipal property can establish that condition of property creates substantial risk to any foreseeable user of public property who uses it with due care, he has successfully alleged existence of dangerous condition, regardless of his personal lack of care. California Government Code Section 830.

A pipe bridge will be a target for vandals. (It is not hard to imagine, particularly in a rural area such as this, that people will "plink" the pipe.) (*Plinking*, Wikipedia, November 17, 2011, "informal target shooting, done at non-traditional targets".)

Furthermore, other reasonable alternatives should be considered to avoid aesthetic impacts (it is hard to see how an above ground pipe will enhance the river system). Current and future economic impacts of the proposed design are not identified and not discussed, thus the proposed designs are incomplete, at best. The analytical process by which this was developed is not evident in the document or the studies it relies upon. If modification of the City's water supply is part of the Project, it must be part of the Project description, and, it must be a complete description. *Cleaner Environment v. Yosemite Community College District* (2004) 116 Cal.App.4th 629.

If these are mitigation measures, NEPA requires an EIS to provide "sufficient detail to ensure that environmental consequences have been fairly evaluated." *City of Carmel-by-the-Sea v. U.S. Dept. of Transportation* (9th Cir. 1993) 123 F.3d 1142. CEQA requires an EIR to identify specific mitigation measures that will avoid or reduce the significant impacts of a proposed project. 14 Cal. Code Regs., § 15126.4. Proposed mitigation must be sufficiently specific to ensure they are enforceable and effective. *Vineyard Area Citizens for Responsible Growth, etc., v. City of Rancho Cardova* (2007) 40 Cal.4th 412. Vague, incomplete or speculative mitigation measures are insufficient for CEQA purposes. *Federation of Hillside & canyons Assn. v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1260. The EIS/EIR mitigation measures with respect to the City of Yreka, lack any meaningful discussion regarding the basis for selecting a particular measure and lack any consultation with the City, or how the mitigation measures will actually mitigate the impact, and are therefore incapable of satisfying the mandates of either NEPA or CEQA.

A. Comment re Adequacy of the Impact of the Proposed Action Upon the City of Yreka Water Supply.

(1) Water Pipeline

The City's main water transmission line runs under Iron Gate Reservoir and must be protected from exposure, deterioration, and public access. The line lies upon the lakebed. The elevation should be 2350 (According to Fall Creek Water Project – schedule A 'as-built' plans, the elevation should be about 2350, Rob Taylor, City of Yreka Water Manager, November 7, 2011). If the dams are removed, this line could become a barrier to river flow. It is not known whether and to what extent a barrier will be created or what sediments have accreted around the pipe. The City very specifically described the state of its water right and water system by Comment to the Secretary in July 2010, at the time of scoping for the EIS/EIR [Scoping Comment, City of Yreka, Letter dated 7-20-10, Exhibit "B"]. The pipeline was originally designed and constructed underground to protect it and assure its long term service to the City. The effects of this Project should not jeopardize this, and the pipeline should be reconstructed in a like manner. (Steve Neill, Public Works Director, City of Yreka, November 2, 2011). Clearly, disturbance of this pipeline will adversely impact the integrity of the City's water facilities.

There is no one place in the EIS/EIR that squarely and succinctly describes the impact of the proposed action on the City of Yreka's water supply or water right. There is no one place in the EIS/EIR that squarely and succinctly describes the mitigation measure incorporated into the Proposed Action and Alternatives 3 and 5 for the relocation of the City of Yreka water supply pipeline. The concepts appear to evolve across the 1800, plus, page document. The first mention of the proposals in connection with the City's water system is at page page 2-29, where it is described only peremptorily. Perhaps the fullest description of the impacts to the City of Yreka's water supply is found at *Page 3.21-14, Section 3.21 Toxic Hazardous Materials Section (see bold, italics):*

> *Removal of Iron Gate Reservoir would require the relocation of the Yreka water supply pipeline, which could create a significant hazard to the public or the environment through the accidental release of hazardous materials into the environment during construction.* ***The existing water supply pipeline for the City of Yreka passes under the Iron Gate Reservoir and will have to be relocated prior to the decommissioning of the reservoir to prevent damage from deconstruction activities or increased water velocities once the reservoir has been drawn down. The pipeline will either be suspended from a pipe bridge across the river near its current location, or rerouted along the underside of the Lakeview Bridge just downstream of Iron Gate Dam. Construction equipment used for the relocation would require the use of hazardous materials (e.g., diesel and gasoline fuels, hydraulic oil).*** Fuels, oils, and other hazardous materials used during construction could be accidentally released within construction, staging, and access areas through spills, fueling, and equipment repair. An HMMP and HASP would be prepared, as described above. **With implementation of the HMMP and the HASP during construction of the Proposed Action, impacts from the accidental introduction of**

> **hazardous materials during the pipeline relocation would be less than significant.** (emphasis added).
>
> In Section 3.2, this pipeline is described as:
> *"Construction of the Yreka Pipeline under the Proposed Action could cause short-term increases in suspended material in the Hydroelectric Reach during the construction period.* For construction of the Yreka Pipeline, Dam Removal Entity (DRE) would construct a new, elevated pipeline and steel pipeline bridge to support the pipe above the river at the upstream end of Iron Gate Reservoir (see Section 2.4.3). **The pipeline bridge would require in-water work in 2019 to build three concrete piers to support the bridge. Additional construction would occur along the Iron Gate Reservoir banks at each end of the new bridge where the new pipeline would be connected to the existing buried pipeline.** The potential for sediments to enter the water during in-water pier construction and from construction site runoff can be minimized or eliminated in Iron Gate Reservoir through the implementation of BMPs for construction activities (Appendix B). Since the construction work will be undertaken in 2019, prior to dam removal, any disturbed sediments would be trapped by Iron Gate Reservoir and not transferred downstream to the Klamath River, particularly given implementation of BMPs. **Under the *Proposed Action*, the effect of Yreka Pipeline construction activities on SSCs in the Hydroelectric Reach at the upstream end of Iron Gate Reservoir would be a less-than-significant impact.** (Section 3.2 – Water Quality, at page 3.2-88)

In sum, it appears the EIS/EIR proposes the following:
1. to relocate the City of Yreka pipeline from below grade to above grade.

2. to relocate the City of Yreka pipeline from its existing path to a path roughly five mile south west of its current location to Lakeview Bridge.

3. Doing all of the work to reconstruct the pipeline within the period allowed by available storage of water.

4. No mention is made of the vulnerabilities, reconstruction or reconfiguration of the City's cathodic field which protects the pipeline from erosion.

The EIS/EIR acknowledges that the KHSA contemplates the burial of the pipeline: "The Proposed Action would require the relocation, replacement, and/or burial of the existing 24-inch diameter water line and transmission facilities from the city of Yreka's Fall Creek diversion (KHSA Section 7.2.3)." (EIS/EIR, page 3.14-24, Chapter 3 – Affected Environment / Environmental Consequences – 3.14 Land Use, Agricultural and Forest Resources).

However, at page 2-29, Chapter 2 – Proposed Action and Description of the Alternatives, the EIS/EIR departs from this commitment, stating: "The City of Yreka's water supply pipeline passes under the upstream end of the Iron Gate Reservoir and would become exposed to high-velocity river flows after dam removal. Reconstructing the pipe further under ground **would likely require digging in bedrock, which would be complicated and expensive**. Therefore,

the DRE would construct a new, elevated pipeline and steel pipeline bridge to support the pipe above the river. The prefabricated steel pipe bridge would be wide enough to accommodate the pipeline and walkway on the deck. The pipeline **bridge would likely be** three spans with a center span of 200 feet and two end spans of 100 feet. The spans would be supported by concrete piers. The new pipeline would be connected to the existing buried pipeline at each end of the bridge. **In order to avoid disruption to the City's water supply, the permissible outage period would be limited by the available storage tank supply**." Alternatives 2, 3, 4 and 5 incorporate the "construction activities for the Yreka Pipeline as described above.

The apparent justification for the foregoing is made at page 124 of the Detailed Plan for Dam Removal – Klamath River Dams, Section 8.0 Yreka City Water Supply, which is done only in a peremptory manner: "Due to difficulties in constructing a buried pipeline under water to the required depth of burial of more than 12 feet, which would likely require rock excavation, a pipe crossing on a bridge constructed above the existing reservoir surface was selected **for cost estimating purposes."** Where did this information come from?

A pipe bridge will be more vulnerable to vandalism and terrorism. A pipe bridge will be more vulnerable to flood damage than a buried pipe. The City's engineering consultants, PACE Engineering of Redding, California, who are readily familiar with the City's water system, state that "many buried pipelines have been installed in bedrock throughout Northern California using rock excavation equipment such as rock trenchers, rock saws, and rock wheels. In addition, trenchless pipe installations using directional drilling or bore and jack methods have been successfully completed in bedrock." (Letter of Paul J. Reuter, Managing Engineer, Pace Engineering, attached hereto as Exhibit "A".) It is inappropriate to burden the City of Yreka and its residents with a "design" which was obviously not fully explored simply because of timing for "cost estimating purposes".

It is completely unreasonable to expect that the City should bear the burden and consequences of these improvements, which begs all of the following questions: Might the pipeline lose any pressure or suffer other operational losses with the realignment; what are the long term maintenance costs; what are future permit and regulatory costs; will the City need additional storage in town or alternate water supply in the event a flood takes out the waterline crossing; should the City have an independent review/examination/engineering of the alignment; what emergency shutoffs or monitoring are reasonable to attach to the pipeline? The City will need a backup pipeline for emergency repair whether the line is buried or aerial, and current best practices warrant it. [Rob Taylor, Water Manager, City of Yreka, November 7, 2011]. Although the City does not have a backup now (and best practices did not necessarily warrant such design at the time of installation), the improvements will make the pipe crossing more vulnerable if its suspended and harder to access if its buried, either way redundancy will be important. (Rob Taylor, City of Yreka Water Manager, November 7, 2011). Either the Project needs to be re-described or Mitigation Measures need to be added to address these concerns.

In addition, in Section 3.3, Aquatic Resources, at page 3.3-137, EIS/EIR states: *"The Proposed Action could require the relocation of the City of Yreka water supply pipeline.* The existing water

supply pipeline for the City of Yreka passes under the Iron Gate Reservoir and would have to be relocated prior to the decommissioning of the dam to prevent damage from deconstruction activities or increased water velocities once the reservoir has been drawn down. The pipeline would either be suspended from a pipe bridge across the river near its current location, or rerouted along the ***underside of the Lakeview Bridge*** just downstream of Iron Gate Dam. Standard construction Best Management Practices would reduce the likelihood and extent of aquatic impacts. **Therefore, the relocation of the Yreka pipeline would have less-than-significant impacts to aquatic resources.**

The foregoing is inconsistent with the provisions of KHSA Section 7.2.3 (the duty to protect City's water supply and right) and is, for that reason at least, infeasible. It is also infeasible because the rerouting of the pipeline to the underside of Lakeview Bridge, as demonstrated by Pace Engineering (Exhibit "A", page 2, Section 2(b)), "will result in significant, unexplored costs not only because it would require thousands of feet of pipe out of the current path of the pipeline, but also because it will significantly alter the hydraulics of the water system and detrimentally change the capacity of the existing Fall Creek Pump station due to the additional head the piping would generate." Pump sizes would need to be increased and/or existing pipes would have to be replaced with larger pipe. No apparent consideration was given to this effect.

(2) Cathodic Field:
The City of Yreka maintains a cathodic protection field at the Fall Creek Campground and Day Use Boat Ramp for which continued access is required to ensure that the City can continue to provide corrosion protection on the main transmission line. Disturbance of this field has not been evaluated, and disturbance would adversely impact the integrity of the City's facilities. (See Exhibit "B")

Either the Project needs to be re-described or Mitigation Measures need to be added which address cathodic field relocation/redesign. Any design must include cathodic protection, which includes coated pipe, bond wire, and the voltage, which will most likely need to be adjusted and which will possibly require measurements at the test stations along the whole pipeline or at least to the next cathodic station on Ager-Beswick road. (Rob Taylor, City of Yreka Water Manager, November 7, 2011).

No consideration was given at all to the effects of scour by flood upon the cathodic field. Letter of Paul J. Reuter, Managing Engineer, Pace Engineering, attached hereto as Exhibit "A". This omission is likewise prejudicial to the City, and for the reasons stated above, this matter needs to be addressed by a revised Project description, a revision of the Proposed Action and Alternatives to reflect the change in project description, and, if this is a mitigation measure, then the mitigation measures should be modified to reflect that as well.

(3) Reconstruction Activities and Water Supply/Storage
As the supplemental Letter from Paul J. Reuter, Managing Engineer, Pace Engineering, attached hereto as Exhibit "A-1" demonstrates, the storage capacity of the water system of the City of Yreka has constraints, which apparently have not been evaluated in this EIS/EIR. Cf., EIS/EIR, Chapter 2, page 2-29, where the Proposed Action and Description of Alternatives includes the

following statement: "In order to avoid disruption to the City's water supply, the permissible outage period would be limited by available storage tank capacity." As Mr. Reuter points out, the Fall Creek line is the sole water supply for the City of Yreka, and, if it is disrupted for any reason, whether for reconstruction, or by vandalism, terrorism, accident or act of God, the water storage capacity of the City is limited to between 1 day and 3 days, depending upon weather or fire conditions. The EIS/EIR does not adequately address these concerns in the Project Description. A revision of the Proposed Action and Alternatives is warranted to reflect the change in project description, and, if this is a mitigation measure, then the mitigation measures should be modified to reflect that as well.

B. Comment re Adequacy of the Analysis of the Impact of the Proposed Action Regarding the City of Yreka Water Right Section 3.8, Water Supply Water Rights.

In the EIS/EIR, at Section 3.8, Water Supply Water Rights, at page 3.8-10, it is stated:

> **"Municipal Water Rights**
> **"City of Yreka**
> "The City of Yreka receives its water supply from Fall Creek, a tributary to the Klamath River in the Upper Klamath Basin that is approximately 23 miles northeast of the city. A California State Water Rights Permit 15379 allocates the City of Yreka up to 15 cfs or 9.7 million gallons per day (mgd) from this source, although the current demand is less than the permitted allotted amount (City of Yreka 2010). The City of Yreka's diversion was completed in 1969 and the public water systems facilities at Fall Creek include three impoundments; an intake structure with fish screens, a pump, and pre-treatment facility; a cathodic protection field at the Fall Creek Campground and Day Use Boat Ramp; and a 24-inch pipeline that crosses on the eastern upstream end of Iron Gate Reservoir. Water diverted from Fall Creek for the City of Yreka is mainly returned through subsurface drains, infiltration, and irrigation runoff to a tributary of the Shasta River (City of Yreka 2010). It should also be noted that the California Department of Fish and Game (CDFG) possesses a 10 cfs water right (SWRCB License 11681) for fish propagation at Fall Creek Hatchery between March 15 and December 15 each year, not to exceed 5,465 acre-feet per year. Shasta River flows into the Klamath River downstream of Iron Gate Dam."

This water right is pledged to be preserved and undisturbed by KHSA, Section 7.2.3. The description in the EIS/EIR is in error. **There are only two impoundments for the City of Yreka's public water system facilities.** (City of Yreka Public Works Director, Steve Neill, November 17, 2011, and Pacific Municipal Consultants Letter, Merle Anderson, November 11, 2011, Exhibit "C").

At Section 3.8, Water Supply Water Rights, at page 3.8-14, the EIS/EIR states:

> **"Alternative 2: Full Facilities Removal of Four Dams (the Proposed Action)**
> *Relocation of the Yreka water supply pipeline after drawdown of the Iron Gate Reservoir and could affect water supply.* The existing water supply pipeline for the City of Yreka passes under the Iron Gate Reservoir and would have to be relocated prior to the decommissioning

of the reservoir to prevent damage from deconstruction activities or increased water velocities once the reservoir has been drawn down. The pipeline would either be suspended from a pipe bridge across the river near its current location, or rerouted along the underside of the Lakeview Bridge just downstream of Iron Gate Dam. The water supply for Yreka, on Fall Creek, would be unaffected by the relocation work. The pipeline would be disconnected for a short amount of time, as dictated by the available storage supply for the city, to prevent interruption of service to the residents of Yreka. **The relocation of the Yreka Pipeline would result in no change from existing conditions. "**

As discussed above, there would in fact be a substantial change in existing conditions if the Yreka Pipeline were redesigned and constructed as set out in the Proposed Action and in this Alternative.

And, at page 3.8-24 of section 3.8, it states:

"Alternative 3: Partial Facilities Removal of Four Dams
Under the Partial Facilities Removal of Four Dams Alternative the impacts would be the same as those described for the Proposed Action. **Impacts associated with relocation of the Yreka water supply pipeline and removal of recreation facilities at reservoirs would have no effect to water supply or water rights. Flow changes downstream of Iron Gate Dam and implementation of IMs would have a less than significant impact to water supply and water rights. Sediment release during reservoir drawdown has the potential to significantly affect water intake pumps by sediment deposits. Mitigation measure WRWS-1 would reduce this impact to less than significant. "**

As discussed above, the sections for Alternatives 2 and 3 shown above are conclusions based upon assumptions on matters which have not been considered or analyzed, and demonstrate no basis for the conclusion.

The City's water right is fully described in Technical Report No. SRH-2011-02, Hydrology, Hydraulics, and Sediment Transport Studies for the Secretary's Determination on Klamath River Dam Removal and Basin Restoration, April 2011, pages 2-31 and 2-32. Fall Creek is a perennial tributary of the Klamath, which has its flow augmented by a diversion of up to 16.5cfs, which currently is approximately 5cfs from Spring Creek (a tributary of Jenny Creek). The City's water right is 15cfs on Fall Creek, and is junior to PacifiCorp. The City is concerned however, that since both Fall Creek and Jenny Creek are critical components of the City's water supply, the emphasis on the reintroduction of anadromous fish and the fishery habitat values of these streams as a result of the removal of Iron Gate Dam or improved fish passage around the dam will impose additional constraints on the availability of the City's water right. This impact will be especially significant if less diversion is consequently allowed (by PacifiCorp and/or the City) than is needed to supply the City's water system. The City wants to be assured of a reliable ability and right to divert up to 15 cfs from Fall Creek.

With the significance of the potential impact (i.e., added constraints to the City's ability to divert water), mitigation is needed. A mitigation measure that apparently has not been considered or explored, as an alternative or otherwise, would be for the State or Federal government to fund development of acceptable, alternative resources for the City's system to compensate for the loss of allowed diversion from Fall Creek that potentially results from the project.

Of concern to the City is that, in the late summer and fall months, especially in low-flow years, the amount of water available from Fall Creek is already limited to meet the City's needs and requirements that are already recognized. This is true even with the supplemented flow resulting from the diversion by PacifiCorp of up to 16.5 cfs from Spring Creek. For example, the USGS gage information used for this analysis indicates that, during the water years 1933 to 1959, the historic minimum monthly average recorded for the months of June through September reached a low of 24cfs. At a flow of 24cfs, the permit condition would allow the City to divert not more than 9cfs (not up to 15 cfs as otherwise permitted) to maintain a minimum bypass flow of 15 cfs. (Pacific Municipal Consultants Letter, Merle Anderson, November 11, 2011, Exhibit "C").

As elucidated by Pacific Municipal Consultants in Exhibit C, if PacifiCorp, for whatever reason, was to stop diverting water from Spring Creek into Fall Creek, the constraints to the City's Fall Creek water resources would become even more severe. A scenario that might force that issue, but which isn't evaluated in the Klamath Facilities Removal EIS/EIR, is that after removal of Iron Gate Dam and the introduction of special status fish, there will be programs to enhance fishery habitat on Jenny Creek and Fall Creek that will create competition for water resources. To enhance habitat on Jenny Creek, there are apt to be proposals to curtail or stop the PacifiCorp's diversion of water from Spring Creek (which is a tributary to Jenny Creek) to Fall Creek, thereby reducing the supplemental flow to Fall Creek that helps sustain the City's water resources. Another scenario is that, even if diversion of Spring Creek is allowed to continue, it will be proposed that the current 15 cfs "minimum bypass" on Fall Creek that is required of the City will be increased and that the City will be forced to divert less water than is currently permitted.

These concerns must be integrated into the Proposed Action and the Alternatives or they must be addressed by developing mitigation measures which avoid, minimize, rectify, reduce, eliminate and compensate for the impacts upon the City of Yreka Water Supply and the water right of the City of Yreka.

C. Comment: Recreation Analysis.

Public Recreation and Access at Fall Creek. As a public water supply, the City's facilities at Fall Creek are subject to the vulnerability assessments promulgated by the California Department of Public Health, the United States Environmental Protection Agency, and Department of

Homeland Security. These assessments could be negatively affected by an increase in public recreation.

The Proposed Action and Alternatives 3 and 5 call for the temporary cessation of public recreational uses in the area, with the resumption upon construction completion. [EIS/EIR, pages 3.20-34 and 3.20-37] This causes greater vulnerability to the City's water supply which greater public access would present. The City may need to explore whether to invoke post-9/11 laws in order to prohibit public recreational access to the Fall Creek diversion, since the City relies upon this exclusively for its water source. This concern was raised in the City's comment, and is completely unaddressed in the EIS/EIR. [cf., Exhibit B].

D. Comment Traffic and Air Quality.

In the EIS/EIR, at page 2-25, Proposed Action and Description of Alternatives, it is stated:

"The DRE would separate reinforcing steel from the concrete and haul it to a local recycling facility in Yreka, California. The DRE would haul mechanical and electrical equipment to Yreka, California for transfer to a salvage company or disposal outside the project boundaries."

The City of Yreka does not own any landfill or transfer station, or other solid waste receiving facility. On July 10, 2007 the City of Yreka assigned Land Use Permit Number UP-02-01 to the County of Siskiyou. Notice of Change in Ownership/Transfer of Ownership of the Yreka Sanitary Landfill Facility #47-AA-0002 was duly given to the California Integrated Waste Management Board on May 25, 2007. At the time of transfer Yreka Landfill was a relatively small volume facility – the site received an average of 32 tons per day of waste. The landfill had a remaining site life estimate of 65 years or less if best management practices, including compaction were not implemented, for a total capacity of approximately 500,000 tons. The understanding of the parties at time of transfer was that the County would be closing and capping the landfill facility and operating a transfer station at the site.

F. Comment re Economics and Environmental Justice, and Tribal Trust.

The City believes the Project will have an impact upon the City's urban environment. This is so, because the City is within the area of analysis. (EIS/EIR, Chapter 3, page 3.12-2.) The City is concerned to avoid significantly diminishing the quality of life in the City and its environs due to the Project. 40 C.F.R. § 1502.27(b). The Project, along with foreseeable related development, could significantly affect the character of future residential and nonresidential areas within the City. Costs, as well as potential benefits, should be considered in evaluating the overall socioeconomic impacts of the project on the local community.

More than just tribal economics and environmental justice is impacted by the project, although this is a significant portion of the analysis in the EIS/EIR. The City of Yreka has approximately 3,000 households. Of those, approximately only 100 households are located upon property held in trust by the Secretary of the Interior for the Karuk Tribe of California, which comprises

approximately 300 acres. That property is located within the city limits and is served by the water system of the City of Yreka.[1]

Presidential Order 12898 directs that each federal agency achieve environmental justice, specifically to identify and address "disproportionately high human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." Section 1-104, Sec. 2-2 indicates that each federal agency must ensure that activities do not have the effect of excluding populations, denying, or subjecting persons to discrimination.

The City of Yreka is a disadvantaged, low-income population as documented in numerous Census reports as well as the 2008 City-wide Income Survey referenced in the City's Scoping Comment Letter indicating that income levels in 68% of Yreka households were below 80% of the county-wide median income. Yreka's average unemployment also typically exceeds the state averages by more than 5%. The most recent information available for these statistics is before the current economic crisis and they have worsened since 2008.

The principles of Environmental Justice indicate that the City's low income population should not bear any greater costs or impacts beyond that expected of any other population. The proposed action could result in significant, and potentially disproportionate, impacts in several ways:

- City electric customers will pay more in electric rates resulting from dam removal as PacifiCorp moves to recover the costs it is required to contribute to dam removal.
- City residents will be affected by California's participation in a Water Bond and the associated state-wide budgetary impacts.
- City water customers may be required to pay additional long-term water system costs resulting from increased maintenance and operational expenses resulting from the proposed action.
- Reductions in local economic potential resulting from a loss of the jobs currently associated with existing conditions.
- Loss of stable, long-term jobs that are expected to shift to short-term, restoration and regulatory jobs and seasonal positions associated with coastal fishing and Klamath Basin agriculture (not in Siskiyou County).

[1] To the extent the assumptions in the EIS/EIR are that the Karuk aboriginal territory includes the City of Yreka, cf., National Indian Gaming Commission, Downes Memo dated October 12, 2004 (Exhibit D). Figure 3.16-28 Environmental Justice shows as tribal lands near haul routes "Karuk Off-Reservation Trust Land" in Yreka. This is mischaracterized. The Karuk Tribe has no reservation and that fact is cited in the EIS/EIR – p 3.12-20. The lands in the COY are held in trust for the KTOC by the Secretary of the Interior.

- Potential for water diversion reductions, further limiting economic expansion potential which could offset the economic impacts of dam removal in Siskiyou County.
- Potential water supply disruptions from flooding, vandalism, and geologic hazards would not affect any other disadvantaged population in the project area.

It will be this population that bears the cost of the proposed actions. They will bear the rate increases, they will bear the cost of mitigating the impacts, and they will bear the loss of opportunity. Based upon all of the foregoing comments, the City asks the Secretary to bear in mind the economic impacts upon the local community and address those impacts in the analysis to ensure the burden is not inappropriately shifted to the residents of the City.

G. Cumulative impacts.

A cumulative effect or impact is defined as the "impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions." [40 C.F.R. § 1508.7]. The City believes a cumulative effects analysis generally includes: (1) the area in which effects of the proposed project will be felt, (2) impacts that are expected in that area from the proposed project, (3) other past, proposed, and reasonably foreseeable projects that may impact the same area, (4) impacts or expected impacts from these other actions, and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate. [40 C.F.R. §§ 1508.9; *CEQ Guidance Regarding Cumulative Effects*, Council of Environmental Quality (Jan. 1997)]. The cumulative effects analysis done for the EIS/EIR is faulty because it does not make its analysis upon a complete project description. An inadequate project description can lead to a 'fallacy of division' resulting from overlooking the project's cumulative impacts by separately focusing on isolated parts of the whole. *San Joaquin Raptor/Wildlife Rescue Center v. Stanislaus County (Arambel & Rose Development)* (1994) 27 Cal.App.4th 713.

The EIR/EIS does not identify the likely source of replacement power after these facilities are removed. Hydroelectric power is green and renewable, and it exists now. Most other sources capable of replacing the MW generated by the Klamath Hydroelectric Facilities would require the construction and use of alternative generation, distribution, and transmission facilities which could increase the carbon footprint of PacifiCorp's power mix. Additionally, some alternative power supplies may directly increase emissions, transmission losses, and require more fuel consumption for distribution. The impacts resulting from alternatives for supplying replacement power supplies are not identified in the traffic, air quality, or cumulative impacts sections to be addressed and mitigated in the EIR/EIS. This is yet another impact which is deferred for future analysis, contrary to the requirements of EIR and EIS procedures.

Reconstruction of the City's water pipeline could put at risk United States taxpayer dollars. See the letter City Manager Steven W. Baker, May 5, 2011, Exhibit "E", which discusses the water supply system of the City of Yreka. This system is an investment of federal tax payers: The City is recipient of a $10 million loan/grant from USDA which is secured by Certificates of Participation held by the US Government. This investment was made in March 2011, and is a 30

year commitment from the City of Yreka to repay. The Proposed Action and Alternatives 3 and 5 stand to jeopardize this investment of the People of the United States to the extent that the ability of the City to maintain its rates for repayment of this loan is impacted because of loss of water supply or loss of water right. This impact was not discussed or explored in the EIS/EIR, most likely because the City was not consulted on the pipeline design.

H. List suggested mitigation measures:

It is CEQA policy that lead agencies should not approve a project which has a significant environmental impact if there are feasible mitigation measures available that would substantially lessen the impact. Public Resources Code Section 21002; Guidelines Section 15021(a)(2). "Mitigation" is defined in Guidelines Section 15370 as including: "Compensating for the impact by **replacing or providing substitute resources or environments".** (emphasis added). If the reconstruction of the City's water pipeline is in fact a mitigation, the following should be considered. If not, then these considerations should be reflected in the Project Description.

i. Can burial of the pipeline occur? If so, what would the design be and what protections would be taken for the undisrupted service of water to the City of Yreka?

ii. Can the aerial pipeline be fortified against 100+ flood/creates maintenance & repair exposure? At what cost?

iii. Can the aerial pipeline be fortified against public trespass/creates liability exposure? At what cost? Who will bear the cost of liability exposure? Will the Federal government and the States of California and Oregon indemnify and hold harmless the City of Yreka for any injuries which may occur to persons who come onto the pipeline and become injured?

iv. Can the aerial pipeline be armored or fortified against public vandalism/terrorism? At what cost?

v. Who will bear the costs of maintenance & repair exposure?

vi. What are the other alternatives on pipeline relocation? What are their design features and what protections can be taken for the undisrupted service of water to the City of Yreka?

vii. Is additional water storage needed for the City of Yreka as a result of the Proposed Action or any of the Alternatives, and at what cost.

viii. What measures will assure safety and non-disruption of City water supply by any of the foregoing events? This does not appear to have been considered.

ix. What measures will be taken to protect the cathodic field from destruction by flood? This field prevents deterioration of the pipeline. If the pipeline is relocated, the cathodic

field will need relocation, at what costs of relocation, availability of appropriate location, operational effects, etc.).

x. Disruptions of the City's water supply are not evaluated fully. Storage capacity is limited, and not considered in the Proposed Action or the Alternatives. An alternative water supply/source may be required. This has not been evaluated by the EIS/EIR or its supporting documents.

xi. Any mitigation must include an undertaking by the Federal and State Governments equivalent to a contractual obligation, secured by all necessary appropriation, that all capital improvements and all costs to the City as a result of this action will be defrayed; the cost to fortify and protect the water supply from interference or disruption will be defrayed, and, if there is insufficient water supply because of the action, the water needs of the City of Yreka will be met. There have not been a reasonable range of alternatives considered for this particular component of the project.

xii. Shouldn't different pipeline replacement possibilities be considered? Shouldn't alternatives for redundancy be considered?

xiii. Impairment of City's water right is not considered. To the extent that COY water right is diminished by the action taken in Alternatives 2, 3, and 5, the City will be irreparably damaged and that impact has not been considered. The only feasible alternative to deprivation of City water right is the creation of an alternative water supply.

xiv. Any mitigation must include consideration of the effects of KHSA at 7.6.5.A, Water Rights Agreement Between PacifiCorp and the State of Oregon, KHSA, Exhibit 1, which states: "For purposes of this Agreement transfer of the Fall Creek hydroelectric power plant, along with Claim 218, to another entity shall not constitute permanent cessation of power generation; provided that any transfer of the Fall Creek hydroelectric power plant will be governed by applicable law". In the event PacifiCorp discontinues operations of its Fall Creek facilities, and for the purpose of maintaining future stability of its water right and water supply, the City of Yreka should be designated as successor in interest to PacifiCorp 's water rights on Fall Creek and Spring and Jenny Creek, and the facilities/assets at Fall Creek. To the extent there is a cost associated with such a designation, as incidental to the preservation of the City of Yreka's water right, that cost be should determined and evaluated as part of the Project Description. If, instead, it is a mitigation measure, then it should likewise be analyzed.

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IV. GENERAL CONSIDERATIONS:

The City incorporates by reference to these comments all of the attached Exhibits. The City requests that formal notice be taken of all comments filed by the City of Yreka to the Draft Environmental Statement for Hydropower License, Klamath Hydroelectric Project, FERC Project No. 2082-027. (City of Yreka Resolution Number 2621 adopted on November 16, 2006, Approving Proposed Comment of the City of Yreka to the Draft Environmental Impact Statement for Hydropower License in the Matter of the Klamath Hydroelectric Project, FERC Project No. 20082-027.)

The Executive Summary of the EIS/EIR states at page ES-10, that "the KHSA was an outcome of the Federal Energy Regulatory Commission's (FERC) Alternative Dispute Resolution Procedures as outlined in the Energy Policy Act of 2005 (18 C.F.R. 385.601, et seq.) wherein the parties elected to set aside differences to reach resolution on a settlement that is in furtherance of the interests of all of the parties." The City is not a signatory. The City asks that a legal opinion be provided from counsel, independent of the parties to KHSA and the Secretary, to assure the authority of the Secretary to take action at all. The Energy Policy Act 2005 §442 became law in August 2005, after the interventions notice issued August 16, 2004, in FERC P2082-027. The City contends this violates substantive due process: it interfered with the administrative process, parties had already made participatory decisions in reliance upon the interventions notice, and by its terms the Energy Policy Act of 2005 Section 442 deprived party status to interested persons unless they were willing to accept preconditions for participating.

V. CONCLUSION

The Proposed Action is a massive, long-term, expensive, and extremely important public project. Pursuant to the requirements of NEPA and CEQA, the Federal and State governments have spent a substantial amount of time and resources preparing the draft Environmental Impact Statement /Environmental Impact Review analyzed in this letter. For the reasons discussed in depth above, we believe that the EIS/EIR is deficient in a number of respects, including in its incomplete Project Description, analysis of the Project and alternatives to the Project and of the Project's environmental impacts.

Due to the limited amount of time granted for comment on this matter, it has not been possible for the City to evaluate whether or not all issues affecting the City have been identified and addressed, and to properly address such issues. The time period for comment, while it is the minimum allowed by law, is unreasonable and prejudicial to the City in light of the size and scope of the EIS/EIR and its supporting documents. Accordingly, and for these reasons, the City reserves the right to raise additional issues as and when they become evident in the course of these proceedings.

In order to cure the numerous defects in the EIS/EIR, the document must be revised to fully and accurately describe all of the Project's components. Substantial new information must be obtained to adequately describe the Project and assess the Project's environmental impacts and to

identify effective mitigation measures and alternatives capable of alleviating these impacts. The resulting changes would require recirculation. CEQA and NEPA require that the public have a meaningful opportunity to review and comment upon the significant new information necessary for a full environmental review of the Project, and this new information should be presented to the public in the form of a revised and re-circulated EIS/EIR.

In summary, the City hopes that the Secretary takes into consideration these comments on the EIS/EIR so that these concerns can be addressed. Thank you for the opportunity to submit these comments.

Very truly yours,

CITY OF YREKA

By: Rory McNeil

Rory McNeil,
Mayor, City of Yreka

/mfm/jh

Exhibits:
A. November 7, 2011 and November 11, 2011 Letters from Pace Engineering, Paul J. Reuter, Managing Engineer
B. City of Yreka Scoping Comment Letter, July 20, 2010, Steven W. Baker, City Manager
C. Pacific Municipal Consultants, November, 2011, Merle Anderson
D. National Gaming Commission Memorandum dated October 12, 2004, Penny J. Coleman, Acting General Counsel
E. City of Yreka, May 5, 2011, Steven W. Baker, City Manager
F. City Council, City Of Yreka, Resolution 2939, Dated November 3, 2011
G. Correspondence between City of Yreka Water Manager Rob Taylor and USBR staff member Tom Hepler, August 24, 2010, through October 27, 2010

PROOF OF MAILING

The undersigned declares:

1. I am over the age of 18 years and not a party to the above referenced matter. I am employed by the City of Yreka. My business address is 701 Fourth Street, Yreka, California. I am readily familiar with the practice of the City of Yreka for collection and processing of correspondence for mailing with the United States Postal Service, which practice is that correspondence is deposited with the United States Postal Service that same day in the ordinary course of business.

2. On November 17, 2011, at the City of Yreka, I caused a true copy of:

Klamath Facilities Removal Public Draft Environmental Impact Statement/Environmental Impact Report – City of Yreka Comment dated November 17, 2011

to be deposited at the Post Office at Yreka California in a sealed envelope with Express Mail postage paid, with the following name and address:

Ms. Elizabeth Vasquez
Bureau of Reclamation
2800 Cottage Way
Sacramento, California 95825

The envelope was sealed and placed for collection and mailing on that date following ordinary business practices. In addition, a

complete copy of the above described document was posted by the undersigned at the address designated by Federal Register/Vol.78 No. 184, page 58833: KlamathSD@usbr.gov.

I declare, under the laws of the State of California, that the foregoing is true and correct, and that this Declaration was executed on November 10, 2011, at Yreka, California.

Mary Frances McHugh, City Attorney, City of Yreka

PACE ENGINEERING

November 7, 2011

69.36

SENT BY E-MAIL ONLY
hook@ci.yreka.ca.us

Jeanette Hook
City of Yreka
701 4th Street
Yreka, CA 96067

Dear Jeanette,

Subject: Klamath Facilities Removal Project
Comments on Draft EIS/EIR and Supporting Studies and Reports

The purpose of this letter is to provide comments on the subject project environmental studies as they pertain to the City of Yreka's municipal water infrastructure. Cursory review of the following documents was performed:

- Klamath Facilities Removal Public Draft, Environmental Impact Statement/Environmental Impact Report, September 2011 (Draft EIS/EIR)
- Hydrology, Hydraulics, and Sediment Transport Studies for the Secretary's Determination on Klamath River Dam Removal and Basin Restoration, April 2011
- Detailed Plan for Dam Removal – Klamath River Dams, September 15, 2011
- Various City of Yreka correspondence

COMMENTS

In our opinion, the Draft EIS/EIR lacks sufficient analysis and consideration for properly mitigating the impacts to the City's water system infrastructure. Specific areas of concern are described below.

1. Impacts to the Existing Cathodic Protection Field: The City's existing Fall Creek pipeline contains a cathodic protection system consisting of three rectifiers with anode ground beds. One of the rectifiers and ground beds is located adjacent to Iron Gate Reservoir. It is recommended the final EIS/EIR address the impacts to the City's existing cathodic protection facilities resulting from future flooding, including forecast flood events caused by climate change. In addition, the new pipeline needs to be tied into the existing cathodic protection system. Because the new pipeline will affect the electrical current demand on the system, it will be necessary to make appropriate adjustments to ensure continued cathodic protection. The final EIS/EIR should address these impacts.

EXHIBIT "A"

2. Relocation of Existing Raw Water Pipeline to the Lakeview Bridge: The Draft EIS/EIR references two possibilities for relocating the City's existing raw water pipeline, currently routed under Iron Gate Reservoir: 1) Install on a pipeline bridge near the current location; and 2) relocate to the Lakeview Bridge below Iron Gate Dam. Relocating the pipeline to the Lakeview Bridge should not be considered for the following reasons:

    a. The Lakeview Bridge is located a significant distance from the current crossing location. Therefore, it would be necessary to install thousands of feet of additional pipeline which, ultimately, will require maintenance by City of Yreka Staff.
    b. The additional pipeline would significantly alter the hydraulics of the water system and reduce the capacity of the existing Fall Creek Pump Station due to the additional head the piping would generate.
    c. It is likely the existing pump sizes would need to be increased and/or a significant amount of existing pipeline replaced with larger diameter pipe in order to reduce the additional head caused by the increase in pipe length.

3. Relocation of Existing Raw Water Pipeline using a Pipe Bridge: The Draft EIS/EIR recommends the City's existing Raw Water Pipeline under Iron Gate Reservoir be relocated at the same location using a pipe bridge. We have the following concerns with this proposal:

    a. Vulnerability during Flood Events: Due to the importance of this pipeline to the City of Yreka, we question whether simply placing the pipe bridge above the 100-year flood level is adequate. Why not the 500-year flood level? Or higher? And, how high above the design flood level should the pipe bridge be placed in order to allow easy passage of debris, such as trees and structures, which are common during high flood events? The Draft EIS/EIR discusses the likelihood of future flood events, caused by climate change to be more severe than historical events. How will this impact a structure designed to historical flood levels?

    b. Increased Need for Back-up Water Supply: The importance of the raw water pipeline to the City of Yreka cannot be overemphasized. No matter what mitigation measures are employed to protect an aerial pipeline crossing from damage caused by floods, there will still be risks to the City. Arguably, these risks are greater than the risks associated with the current pipeline under Iron Gate Reservoir. In order for the current pipeline to be damaged by flooding, the dam would have to fail. Therefore, to adequately mitigate the increased risk associated with an aerial pipe crossing, consideration should be made for developing a back-up water supply for the City of Yreka. The City currently does not have a back-up water supply. If this pipeline should be washed out in a flood, the City could be without water for days, weeks, or more.

c. Increased Maintenance by City of Yreka: An aerial pipe crossing will impose higher maintenance costs to City consisting of periodic corrosion inspections and coating repair and/or re-coating. The final EIS/EIR should address how these additional maintenance costs to the City of Yreka will be mitigated?

d. Increased Liability to the City of Yreka Resulting from Access to the Public: An aerial pipeline crossing will create a higher liability risk to the City due to its exposure to the public, i.e., an attractive nuisance. The pipe crossing will be subject to climbing and jumping off of from the public. The final EIS/EIR should address how this increased liability to the City of Yreka will be mitigated?

4. Consider Buried Options for Replacement of the Existing Raw Water Pipeline: The *Detailed Plan for Dam Removal – Klamath River* Dams, dated September 15, 2011 (Page 124) dismisses the option of burying the replacement raw water pipeline due to the difficulty of construction and likely requirement for rock excavation. We suggest this option be further explored in the final EIS/EIR. Many buried pipelines have been installed in bedrock throughout northern California using rock excavation equipment, such as rock trenchers, rock saws, and rock wheels. In addition, trenchless pipe installations using directional drilling or bore and jack methods have been successfully completed in bedrock.

   There are many contractors and specialty subcontractors throughout California that have this type equipment at their disposal. A buried pipe installation would mitigate many of the environmental issues related to impacts from flooding, aesthetics, and access to the public. In addition, a buried pipeline would be easier to maintain and can likely be installed less expensive than a pipe on a pipe bridge. Therefore, we recommend this option be more carefully studied in the final EIS/EIR.

5. Mitigation Costs for Impacts to the City of Yreka's Water System: Table 3.15-64 in the Draft EIS/EIR indicates a $1.0M cost in Year 2020 for mitigating the impacts to the City of Yreka's Water System. Table 9-9, Page 145, in the *Detailed Plan for Dam Removal – Klamath River Dams*, dated September 15, 2011, suggest a total project cost of $5.6M to employ recommended mitigation measures to reduce impacts to the City of Yreka's water system. This disparity in mitigation costs needs to be addressed in the final EIS/EIR

6. Scheduling of City of Yreka Water System Mitigation Work: The dam removal schedules contained in Attachment C of the *Detailed Plan for Dam Removal – Klamath River Dams*, dated September 15, 2011, do not reflect the mitigation work to the City's water system infrastructure. Although Page 3.6-32 of the draft EIS/EIR indicates the pipeline would have to be relocated prior to decommissioning of Iron Gate Reservoir. The timing of the pipeline replacement work will be dictated, largely, by which replacement method is used, and should be completed outside the City's historical peak water demand period. A buried pipeline would have to be replaced after reservoir dewatering. In addition,

depending on the impacts to the City's cathodic protection field, mitigation of those impacts must be considered as part of the reservoir decommissioning.

7. Procurement Strategies: Pages 132 and 133 of the *Detailed Plan for Dam Removal – Klamath River Dams*, dated September 15, 2011, discusses procurement strategies for implementing the mitigation work for the City of Yreka's water system infrastructure. It is recommended the City be afforded the opportunity to participate in the design, construction inspection, and final acceptance of any improvements affecting its water system.

We appreciate the opportunity to assist the City of Yreka through this important process. Should you have any questions, please do not hesitate to call.

Sincerely,

Paul J. Reuter
Managing Engineer

PJR
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PACE ENGINEERING

November 11 2011

69.36

SENT BY EMAIL ONLY

mchugh@ci.yreka.ca.us

Mary Frances McHugh
City of Yreka
701 Fourth Street
Yreka, CA 96097

Dear Mary Frances,

Subject: City of Yreka Water Storage

The purpose of this letter is to convey the City's ability to meet water supply demands from its existing water storage tanks in the event the raw water pipeline is taken out of service. The water storage requirements were taken from the City's 2005 Master Water Plan (Master Plan), prepared by PACE Engineering.

Section 64554 of the California Waterworks Standards (WWS) require water systems serving more than 1,000 connections provide four hours of peak hourly demand (PHD) in storage. However, the WWS do not consider, nor provide design recommendations, for fire storage. As you know, the fire storage component usually exceeds that which is required by the WWS. Table 14 (Page 58) of the Master Plan provides a detailed breakdown of the water storage requirements for each pressure zone in the City based on, 1) equalizing storage (required per the WWS) and, 2) fire storage requirement based on the type of development in the pressure zone and input from the local fire authority.

As indicated in Table 14, the total desired water storage requirement for the City of Yreka is about 4.98 million gallons (MG). Prior to construction of the 2.5 MG Clear Well, the City had about 5.48 MG of total storage. After completion of the Clear Well, the City will have about 7.98 MG of total water storage.

The length of time the City can deliver water to its customers in the event the raw water pipeline is off-line varies depending on the time of year and associated water demands. Prior to construction of the Clear Well, the City would have about 1 day of storage during maximum day demand (MDD) and about 2.3 days during average day demand (ADD). The ADD is the average daily demand for the entire year so, in essence, it is an average of the small winter-time demands and high summer-time demands. After completion of the Clear Well, the City will have about 1.5 days of storage during MDD and about 3.3 days during ADD.

EXHIBIT P.301A"

None of these time projections account for a possible fire occurring during the outage. If a fire were to occur during an outage, the time projections indicated above would be reduced. The amount of reduction depends on where the fire occurs within the system and whether the fire is in a commercial or residential area.

As these projections relate to the proposed Klamath Dam Removal Project, it will be imperative the existing raw water pipeline remain in service throughout construction of the replacement pipeline. It is reasonable to limit any pre-planned shutdowns to the City's existing pipeline to 2 to 4 hours during off-peak demand periods.

Sincerely,

Paul J. Reuter
Managing Engineer

PJR
M:\Jobs\0069\0069.36 Assist with Klamath Dam Removal Mitigation\LTR-City 11-09-11.docx

City of Yreka
701 Fourth Street • Yreka, CA 96097
(530) 841-2386 • FAX (530) 842-4836

July 20, 2010

Ms. Tanya Sommer
Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825

SUBJECT: Comments of the City of Yreka - Klamath Settlement EIS/EIR 2010 Public Scoping Meetings

Dear Ms. Sommer:

The City of Yreka is interested in the above proceedings to protect the City's interest in its water rights, and the maintenance of our public water supply and associated facilities near the PacifiCorp powerhouse at Fall Creek. Therefore, we are providing the following comments for consideration prior to the development of the Draft Environmental Impact Statement/Draft Environmental Impact Report for the Secretarial Determination on Whether to Remove Four Dams on the Klamath River in California and Oregon pursuant to the notification posted in the Federal Register on June 14, 2010, Vol. 75, No. 113. The City also incorporates by reference to these comments, all comments filed by the City of Yreka to the Draft Environmental Statement for Hydropower License, Klamath Hydroelectric Project, FERC Project No. 2082-027, and additionally incorporates by reference the entire FERC EIS as its comments. This comment is pursuant to City of Yreka Resolution Number 2621 adopted on November 16, 2006, Approving Proposed Comment of the City of Yreka to the Draft Environmental Impact Statement for Hydropower License in the Mater of the Klamath Hydroelectric Project, FERC Project No. 20082-027.

Comment re Proposed Action Statement:
The City questions whether the Proposed Action statement is adequate to identify project alternatives. NEPA requires the consideration of project alternatives, including the no-project alternative, and the purpose of the Project Action statement (statement of purpose and need, 40 CFR 1502.13) is to refine the alternatives which should be analyzed. The Proposed Action Statement assumes that removal of the dams will achieve a "free-flowing condition and allow full volitional passage of fish" -- apparently a foregone conclusion. This statement seems to presuppose alternatives and could create an unwarranted bias towards dam removal without consideration of other options. Does this statement truly serve to identify the project alternatives?

Comment re Hydrology, Water Quality, Sediments, Public Services and Greenhouse Gas Emissions:
Background on the City's Water Rights (Permit 15379)
Recognizing the need to establish a firm source of water for its growing population, the City initiated water supply studies as early as 1938. ("Yreka Domestic Water Project, Fall Creek Supply: Feasibility Study," November 1966). Rationing of domestic water use in July and August of 1944, 1955, 1957, 1959, and 1966 added special urgency to the City's search. (*Ibid.*)

Many of the water supply alternatives explored were unsuitable for the City's needs due to existing water rights, water quality, or cost concerns.

Ultimately, the City filed an Application to appropriate water from Fall Creek, a tributary to the Klamath River, on August 12, 1966 (Application 22551). The Application was for 15 cubic feet per second (cfs) to be diverted from January 1 to December 31 of each year for municipal, domestic and industrial uses. In describing the municipal uses to which the water would be put, Section 15 of the Application noted that the City would put increasing amounts of water to beneficial use through the year 2057. The State Water Resources Control Board's ("SWRCB") predecessor issued Permit 15379 to the City on May 17, 1967, and the diversion works were completed in 1969.

City of Yreka Water Supply Facilities

The City's public water system facilities are downstream of PacifiCorp's power plant on Fall Creek. The City of Yreka's facilities on Fall Creek include two small impoundments, an intake structure near the hatchery facilities, a pump and pre-treatment plant, a cathodic protection field, and the 24-inch diameter transmission main that crosses the original Klamath River channel under Iron Gate Reservoir. When the City established its water right, it explored all available local resources. There were none practicable except the Fall Creek system. Since that time, the City has obtained its normal water supply exclusively from Fall Creek, based on the water right that allows withdrawal of up to 15 cfs (9.7mgd), at a location about 23 miles northeast of the City limits. In addition to this water right and the primary facilities associated with this water supply, the City also has an emergency water supply source from a manually controlled well located on the north side of the City. However, this well has not been used for some time, and, when it has been used in the past, boil water notices have historically been issued. ("City of Yreka 2005 Master Water Plan") This emergency supply is insufficient to serve a city of nearly 8,000 persons.

While the City's population has been static for some time, the City's General Plan projects future population growth at 1.6 percent annually over the next 20 years. However, to allow for increases in commercial and industrial use and the current trend for higher-end residential development, it is estimated that the water consumption will increase at 1.8 percent per year. That could result in a 48 percent increase in water usage in the next 20 years. ("City of Yreka 2005 Master Water Plan") This projection is probably being realized: Between 1991 and 2004 the City issued 14 building permits accounting for 14 housing units; if the current growth is measured by building permit issuances, between September 2005 and September 2006 there were 49 permits issued for 200 housing units[1]. The demands upon the City's existing water supply do not currently include significant new industrial development, but do include commercial and light industrial development (both local and regional) as well as development efforts by two federally recognized Native American tribes seeking to establish casinos which may access the City's water supply.

[1] These figures do not represent housing units established P. 3 3st lands, which are users of the City's water system.

SUBJECT: Comments - Klamath Settlement EIS/EIR 2010 Public Scoping Meetings

Beneficial Uses of Water - Water Supply and Quality

The City's water supply facilities do not have any significant impacts on water supplies that would affect other beneficial uses or users of water. Permit 15379 allows the City to divert up to 15 cfs. The City currently diverts less than its allotted right at this time, although this amount will increase as the City's population and water demand expands. The Environmental Impact Report prepared for the General Plan (SCH# 2002032122), which was certified by the City Council on December 18, 2003 (Resolution of the City Council of the City of Yreka, Number 2457), fully analyzed the potential environmental impacts, including water supply impacts, resulting from City's anticipated long-range development under the General Plan.

The projected growth of the City of Yreka for the life of the City's General Plan was anticipated to be at a rate of between 1 and 2 percent annually [Page 1-4, General Plan Update, City of Yreka]. Recently, the growth rate has been 1.26 percent, which is a slight reduction from the 1.76 percent experienced from 2007 to 2008. As analyzed in the General Plan EIR, there is adequate water to accommodate the City's projected moderate growth.

Water diverted by and utilized in the City is largely returned to Yreka Creek, via subsurface drains, infiltration, and irrigation runoff in accordance with the terms of applicable discharge permits. Yreka Creek is a tributary to the Shasta River, which flows into the Klamath River below Irongate Dam. All water that the City discharges to Yreka Creek easily meets all applicable permit terms and conditions. Future discharges will also be subject to permitting terms, and the City's discharges will continue to comply with all applicable legal requirements. Neither the slight decrease in the flows of Fall Creek nor the slight increase in the volume of water discharged to Yreka Creek due to the City's continued beneficial use of the water supply will have any discernable water quality impact.

Impact upon City of Yreka Water Rights and Facilities

Specifically, we request that the Secretary bear the following points in mind and that the EIS/EIR address:

a. Some proposals have specified Fall Creek flow rates which appear to allocate more than 100% of the existing water to new uses, i.e. to re-energize the unused California Department of Fish and Game fish hatchery. It is unclear if these proposals would affect the City's diversion of its 15 cfs water right from Fall Creek? If these proposals are implemented, how and where will minimum flow requirements be measured, relative to the City's water right?

b. The distance from the point of diversion for the City's water supply is between .9 and 1.1 miles from PacifiCorp's diversion structure above the falls to the confluence of the tailwater return channel and the natural creek channel. The requirement for additional flows could negatively impact the City's beneficial use of water for domestic purposes if it is recommended that the minimum flows be 14-22 cfs at Fall Creek. Such a requirement would need to account for the City's 15 cfs water right. This could result in the imposition of additional flow monitoring and release requirements, which, are not due to any action on the part of the City. How will such flow requirements be evaluated, especially given that the City's water supply must occasionally be taken from its B Dam

in the bypassed reach? If additional flow monitoring is required, then the City should not have to bear related extra costs.

c. The City of Yreka maintains a cathodic protection field at the Fall Creek Campground and Day Use Boat Ramp for which continued access is required to ensure that the City can continue to provide corrosion protection on the main transmission line. Disturbance of this field needs to be evaluated, and disturbance could adversely impact the integrity of the City's facilities.

d. The City operates and maintains a pump house and water pre-treatment facility where Fall Creek intersects Copco Road. Disturbance of these facilities needs to be evaluated and any disturbance could impact the City's water system as a whole.

e. The City's main water transmission line runs under Iron Gate Reservoir and must be protected from exposure, deterioration, and public access. The line lies upon the lakebed. If the dams are removed, this line could become a barrier to river flow. It is not known whether and to what extent a barrier will be created, what sediments have accreted around the pipe, what will happen if the pipe is exposed, and what effect that will have upon the City's water system as a whole. Clearly, disturbance of this pipeline will adversely impact the integrity of the City's water facilities. Exposure of this pipeline by removing Iron Gate Dam will make the pipeline vulnerable to all forms of unanticipated or unknown factors, such as flooding, weathering, and acts of vandalism and terrorism. How will these vulnerabilities be identified and addressed?

Potential Unintended Negative Consequences of Increased Flows

Specifically, we request that the Secretary bear the following points in mind and that the EIS/EIR address:

a. Increased flows in Fall Creek could facilitate additional sediment transport to Iron Gate Reservoir, with negative impacts to the quality of the City of Yreka's water supply and to the Klamath River fishery if the dam is removed.

b. Eliminating diversions from Spring Creek to Fall Creek during July and August could have a detrimental effect on the City's water right as well as on resident fish and the aquatic habitat in the wetlands of the diversion channels, within the bypassed reach of Fall Creek, and below. Spring Creek feeds into Fall Creek via Spring Creek's confluence with Jenny Creek, and some of the flow is diverted through a 1.3-mile long canal which flows into Fall Creek about 1.7 miles above the City's diversion.

Comment re Biology and Recreation:

Fish ladders at Fall Creek

Specifically, we request that the Secretary bear the following points in mind and that the EIS/EIR address: Construction of a fish ladder at Fall Creek serves only a limited stream reach accessible to resident fish and makes negligible contribution to improving either water quality or fishery habitat in the Klamath River. If this will be required as a mitigation measure, the City

requests a cost-benefit analysis be conducted of such an action, and the City should not bear any associated costs.

Public Recreation and Access at Fall Creek

Specifically, we request that the Secretary bear the following points in mind and that the EIS/EIR address: The City diverts water from Fall Creek (a tributary to the Klamath River) pursuant to its permit, and discharges its water, after municipal and industrial use and treatment to permit standards, to Yreka Creek (a tributary to the Shasta River). This may slightly decrease the flow of the Klamath River between its upstream confluence with Fall Creek and its downstream confluence with the Shasta River, a distance of approximately 20 river miles. The City's water system has no significant impact on recreational water uses or users.

If additional restrictions on access in the Fall Creek watershed is contemplated, the City formally requests controlled access to the currently locked portions, including Fall Creek Ranch, in order to ensure continued access to our facilities and maintain our monitoring capabilities on the watershed.

The City opposes any public recreation at Fall Creek by providing improved trail and picnic facilities at the currently unused California Fish and Game hatchery ponds. With limited existing signage and an unmarked access road, both City facilities and the California Fish and Game hatchery routinely suffer from vandalism near the PacifiCorp Fall Creek powerhouse. The City expects minor annual maintenance as a result of casual recreation use. However, the City is extremely concerned about the increased maintenance and sanitation impacts which could result from any proposal to develop additional public recreation at this location. California law recognizes that human recreational contact with domestic water supplies can be problematic: "No person shall bathe, except as permitted by law, in any stream, pond, lake, or reservoir from which water is drawn for the supply of any portion of the inhabitants of this state, or by any other means foul or pollute the waters of any such stream, pond, lake, or reservoir." Health & Safety Code § 117000.

As a public water supply, the City's facilities at Fall Creek are subject to the vulnerability assessments promulgated by the California Department of Public Health, the United States Environmental Protection Agency, and Department of Homeland Security. These assessments could be negatively affected by an increase in public recreation. This concern is also applicable to PacifiCorp's Fall Creek Powerhouse, although access is more restricted for the powerhouse than for the City's facilities below it. The City asks that further inquiry be conducted to address the vulnerability to the City's water supply that greater public access would present, otherwise, the City may need to explore whether to invoke post-9/11 laws in order to prohibit public recreational access to the Fall Creek diversion, since the City relies upon this exclusively for its water source.

The existing unimproved trail near the City facilities at Fall Creek is extremely rocky, with highly erosive soils, and very steep. Development of an improved trail, as proposed in the FERC PacifiCorp relicensing documents, is likely to result in continual erosion and increased sedimentation, as well as significant impacts during construction due to the physical constraints of this "high gradient" location. An increase in recreation visitation could also negatively

impact the healthy, diverse and sensitive riparian vegetation along the floodplain of lower Fall Creek. This location is not suitable for public access nor for providing improved recreation facilities.

Vegetation Management Plans

Specifically, we request that the Secretary bear the following points in mind and that the EIS/EIR address that adopted vegetative management plans do not add any deciduous vegetation above City intake facilities. The intake screens already require regular clearing. Due to the possible increase in maintenance for the intake and fish screens, the City requests that coniferous vegetation be used in any Vegetation Management Plans above the City's facilities. Will the City be subject, now or in the future, to creating and implementing such a vegetation management plan? The City should not have to bear these extra costs.

Comment re: Land Use Planning and Greenhouse Gas Emissions

Dam Removal and the Value of the Existing Lakes

Specifically, we request that the Secretary bear the following points in mind and that the EIS/EIR address:

a. The City benefits economically from the diverse recreation provided by existing lakes and rivers. Both types of water recreation are extremely valuable to the region. Tourism benefits from the variety and diversity of recreational opportunities to provide the most significant economic benefit to the region.

b. The availability of open lake water for fire-fighting makes an extremely valuable and significant contribution in the region which has not been identified or considered in dam removal proposals. The City suggests that further inquiry into this issue is warranted as some polling data exists that indicates fire safety is the number one reason Californians give for supporting reservoir development. Reservoirs with fire protection purposes enjoy support from about 80% or more of people responding to polls. It is arguable that the same logic applies to not destroying existing reservoirs that assist with local fire protection needs.

c. Pacificorp produces 716,820 megawatt-hours per year on this project. Inexpensive power, and good air quality, is critically important to residents and the industries that employ them in this historically economically depressed region. The citizens of Yreka are ratepayers of PacifiCorp. Not only will they bear the risks posed to their water supply, but they will also be called upon to bear such burden as is transmitted to them by higher power rates.

d. Analysis needs to account for investments needed on the part of other agencies for reconstruction of current facilities (such as water transmission lines, roadways, and highway bridges) which were designed and installed under controlled river conditions. What are the repair and recovery costs of future, and recurring, flood events on downstream facilities? These costs could be significant and could change the results of the cost-benefit analysis of dam removal.

e. It is counterintuitive to reduce the Nation's ability to generate clean, renewable power at a time when power use is increasing exponentially and when official policy is to encourage consumers to decrease use of petrochemical energy. The costs of developing alternate replacement power supplies if the dams are removed, and the burden upon the rate payer and local community which result, should also be considered within any cost-benefit analysis.

Comment re Biology:

Species Impacts and City Water System

Specifically, we request that the Secretary bear the following points in mind and that the EIS/EIR address:

Water is a scarce and limited resource without which no population, human, animal, or plant, can survive. The entire region benefits from the availability of water resources, and when these resources are limited by drought or other factors, all interests should share in any restrictions. One specific value (fisheries) should not be used as a springboard to artificially control all interests in the beneficial use of water.

The City of Yreka's diversion facility has been in existence and operation since 1969. Permit 15379 was issued on May 17, 1967 and allows the City to divert up to 15cfs (9.7 million gallons per day). All diversion works for the Permit were completed in 1969. The City uses the existing PacifiCorp power canal that leads to the Fall Creek powerhouse. From that point, the City's diversion facility is adjacent to the powerhouse canal approximately 50 feet above the confluence of the canal with the natural Fall Creek channel.

The City has two existing water intake structures on Fall Creek, which lead into the City's diversion facility: (1) the principal intake downstream of the Fall Creek powerhouse described above and (2) immediately downstream of the lower Fall Creek barrier falls. Both intakes are routed through fish screens before entering the City main water supply pipeline. Water is used from only one intake at a time, and flow from the other intake bypasses the facility back into Fall Creek.

Fall Creek is a tributary to the Klamath River. According to William M. Lewis, Jr., Ph.D.:

> The Klamath River Basin has an abundance of aquatic environments, including perennial streams and rivers, shallow lakes, and wetlands. Among the great diversity of organisms that can be found in these environments are the Lost River and shortnose suckers and coho salmon belonging to the Southern Oregon/Northern California Coasts (SONCC) evolutionarily significant unit (ESU) of this species. The Lost River and shortnose suckers are restricted in distribution to the Klamath River Basin, while the SONCC coho salmon is found in the Klamath River Basin and in adjoining river basins.

(Statement of William M. Lewis, Jr., Ph.D., Chair of the Committee on Endangered and Threatened Fishes in the Klamath River Basin, National Research Council /National Academy of Sciences, before the Committee on Resources, U.S. House of Representatives, March 13, 2002.)

The Lost River sucker (*Deltistes luxatus*) and the shortnose sucker (*Chasmistes brevirostris*) are listed as endangered under both the ESA and CESA. According to the California Department of Fish and Game (CDFG)'s California Natural Diversity Data Base (CNDDB), CDFG staff detected shortnose suckers in Copco Reservoir and upstream in the Klamath River in the 1990s. Lost River suckers have been detected from Iron Gate Reservoir to upstream of Copco Reservoir in the 1980s, however, Lost River suckers are not native to the Klamath River below the Klamath Basin in Oregon.

Both the Lost River sucker and the shortnose sucker are bottom-dwelling freshwater fish. The local populations of these species are found primarily in reservoirs; adults generally spend their lives in the quiet lake waters feeding on detritus and zooplankton, although they make use of spawning habitat in streams and springs. It is well known that neither sucker is a strong swimmer, and generally do not leave the reservoirs, except to spawn. The SONCC coho salmon is an anadromous fish that spends most of its adult life in the ocean but returns to freshwater to spawn. The Klamath River supports a run of SONCC coho salmon.

The City's diversion facilities, in place and existing since 1969, do not adversely affect any of these fish species or any other public trust resources. A naturally occurring waterfall (approximately 300' in height) prevents fish from migrating upstream to the City's intake structure on the power canal. Even if fish were present in Fall Creek downstream of the intake structure, this naturally occurring barrier is impassable to both species of suckers as well as SONCC coho salmon.

A four-panel fish screen apparatus is in place in front of the City's intake structure on the power canal. This intake structure is fitted with fish screens of galvanized, 16-gauge, 4-per-inch mesh that are in place all year long to protect against the entrainment of any aquatic species that could be present in either the PacifiCorp powerhouse bypass channel (power canal) or passed through the City's Fall Creek intake below the lower barrier falls. The City requests the Secretary bear in mind, and the EIS/EIR address, to what extent additional fish screening will be considered for this portion of the Project. And, who will bear the burden of the cost for such screening?

Comment re Economics and Environmental Justice.
The City of Yreka has approximately 3,000 households. Of those, approximately 100 households are located upon property held in trust by the Secretary of the Interior for the Karuk Tribe of California, which comprises approximately 300 acres. That property is located within the city limits and is served by the water system of the City of Yreka.

In 2009, the City conducted a Citywide Household Income Survey which was funded by Planning Grant #07-PTAG-3673 through the Community Development Block Grant Program. The survey was conducted by Great Northern Corporation; it did not assess the Karuk Housing Area. According to the survey, the City of Yreka has a Targeted Income Group level of sixty-eight percent (68%). The "Targeted Income Group" is defined as those persons whose household income is less than 80% of the County median income. The term is used to identify income thresholds in communities seeking federal funding assistance. These income limits are

calculated based on a Housing and Urban Development income limits table that is used for the Section 8 Housing Assistance Program.

It will be this population that bears the cost of the proposed actions. They will bear the rate increases, they will bear the cost of mitigating the impacts, and they will bear the loss of opportunity. Based upon all of the foregoing comments, the City asks the Secretary to bear in mind the economic impacts upon the local community and address those impacts in the analysis to ensure the burden is not inappropriately shifted to the residents of the City.

Conclusion.

Balance is needed to benefit many competing interests. The requirement to balance public trust uses against other beneficial uses of water is one of the often-overlooked holdings of the California Supreme Court's *National Audubon* decision [*National Audubon Soc'y. v. Superior Court*, 33 Cal. 3d 419, 447 (1983)]: "As a matter of practical necessity the state may have to approve appropriations **despite foreseeable harm to public trust uses.** In so doing, however, the state must bear in mind its duty as trustee to consider the effect of the taking on the public trust (citation omitted), and to preserve, so far as consistent with the public interest, the uses protected by the trust." [emphasis added.] Balance may require considering more than just empirical or scientific analysis.

The health of the fishery is a very complicated issue intermingled with the health of the ecosystem as a whole. While recovery of a healthy river system and its attendant wildlife is a noble desire, restoration will take a long time and is only one part of restoring a healthy ecosystem. To expect a return to historic conditions with limited populations, "untouched" forests, and massive fish spawning runs is more than any one project can deliver. It must be remembered that historic conditions have also included both natural and human activity: massive fires, extensive mining, lack of sanitation, disease, famine, substandard housing, and flooding, among other hardships.

In summary, the City acknowledges that throughout the process dealing with the Klamath issues, all of the parties have respected the concerns of the City of Yreka, which is principally to keep the City of Yreka's water supply viable. The City has consistently supported PacifiCorp's application for re-licensure of its project facilities and has urged selection of various of the proposed alternatives so long as the impacts to the City's water facilities and supply are appropriately considered and mitigated. It is inappropriate to burden the City of Yreka and its residents with requirements related to this Project simply because the timing coincides with fishery restoration concerns. It is completely unreasonable to expect that rate payers should bear the burden of unrelated improvements.

Thank you for allowing the City of Yreka the opportunity to provide these comments on this issue of critical importance to the health, safety and well-being of our citizens. We appreciate your careful consideration of the issues we have raised in this letter, and we look forward to receiving your response. We also ask to be placed on the list of parties to be notified of any developments in these proceedings.

Should you wish to obtain any additional information about the issues discussed in this letter, the

City's staff would be happy to assist you. Please feel free to contact me at (530)841-2386 with any questions you may have.

Very truly yours,

City of Yreka

By:
Steven W. Baker, City Manager

cc: City Council members; City Attorney; Public Works Director; Planning Director; Tom Guarino, County Counsel, Siskiyou County /mfm

References

California Department of Fish and Game (CDFG). 2008. *California Natural Diversity Data Base (CNDDB). Data Base Record Search for Special-Status Species: Bogus Mountain, Copco, Dewey Gulch, Iron Gate Reservoir, Panther Rock, and Secret Spring Mtn. 7.5 Minute Quadrangles*. December 2, 2008. California Department of Fish and Game, Sacramento, CA.

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City of Yreka General Plan Update 2002-2022 and Final Environmental Impact Report adopted by Resolution 2457, City Council, City of Yreka, December 18, 2003.

City of Yreka Citywide Household Income Survey, 2009.
City of Yreka 2005 Water Master Plan.

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PMC™

November 11, 2011

Ms. Mary Frances McHugh, City Attorney
City of Yreka
701 Fourth Street
Yreka, CA 96097

Subject: Klamath Facilities Removal Draft EIS/EIR

Dear Ms. McHugh:

Because of PMC's recent work with the City of Yreka regarding the City's Fall River water permit and water resources, I have reviewed the Klamath Facilities Removal Draft EIS/EIR (Draft EIS/EIR) and related documents as requested and I am providing observations and opinions concerning how the proposed removal of the dams and related actions may impact the City's water resources. In that regard I have reviewed not only the Draft EIS/EIR and its appendices, but also the Klamath Hydroelectric Settlement Agreement (KSHA), the Klamath Basin Restoration Agreement (KBRA), and various documents related to PacifiCorp's FERC license.

Introductory Comments

Certainly, the Fall Creek water source is critical to the public welfare of the City and its population of nearly 7,800 people. At this time the City has no appropriate or sustainable alternative water source to its Fall Creek resource and the development of a new resource (presumably from limited groundwater) and connection to the existing treatment and delivery system would be extremely challenging and expensive. Any action or policy that may result in jeopardizing or constraining the Fall Creek resource without completely mitigating and/or compensating the City for such a loss with equivalent resources would be profoundly detrimental to the people of Yreka and the City's future .

As an initial comment, I note that the Draft EIS/EIR observes that the City of Yreka has a municipal water supply intake on Fall Creek and a pipeline that crosses Iron Gate Reservoir; and that the pipeline would be affected if the Iron Gate Dam were removed. (Draft EIS/EIR page 1-22) The draft makes reference to the KHSA on this issue. However, the Draft EIS/EIR does not accurately portray how the KHSA has deferred consideration of the possible impacts that facilities removal would have on the City's water supply and pipeline, nor does the draft respond to the clear intent of the KHSA that the City's concerns need to be evaluated.

The KHSA, in Section 7.2.3 (B), states, "As part of implementation of this Settlement, an engineering assessment to study the potential risks to the City of Yreka's water supply facilities as a result of implementation of Facilities Removal shall be funded and conducted by the Secretary". (KHSA, page 46) Such an assessment could have and should have been completed prior to or as part of the EIS/EIR process. The Draft EIS/EIR defers critical environmental analysis to some future, unspecific date, as did the KHSA (although that agreement was given an exemption from CEQA). The Draft EIS/EIR attempts to

EXHIBIT "C"

also pass over the need for a real assessment by assuming that, because some signatories to the KHSA have agreed not to prevent use of Yreka's Water Rights permit, the City's concerns should be adequately resolved and related impacts are not significant. The Draft EIS/EIR apparently also assumes, as did the KHSA, that some agency will eventually study the potential risks to the water supply system that could result from removal of dams and therefore that issue wasn't a responsibility of the EIS/EIR process. However, the failure to evaluate the impacts on the City's water supply and system as part of the total project should be clearly inadequate under the provisions of NEPA and CEQA.

Furthermore, without benefit of a complete analysis of the potential risks to the water supply as anticipated in the KHSA, the Draft EIS/EIR then attempts to come to a conclusion that removal of the dams and changes to the City's pipeline will have no significant impact on the City's water system. For example, in Section 3.8, Water Supply/Water Rights, the only acknowledgement to the potential impacts on the City's Fall Creek water source concludes simply that, "The relocation of the Yreka Pipeline would result in no change from existing conditions." (Draft EIS/EIR page 3.8-14) Not only is that statement incorrect (the relocation and related changes are, in themselves, changes from existing conditions and would trigger consequent changes), that section fails to consider other impacts to the water system, including competition for limited water resources on Fall Creek and the probable reduction of the amount of water that the City would otherwise have available for diversion pursuant to its water rights. Those potential impacts will be addressed in more detail below.

It is understandable that the City is alarmed that state and federal agencies intend to continue to make critical decisions that threaten the security of the City's municipal water system, and that those decisions thereby build momentum for a proposed action, before those agencies fulfill their duties under their respective environmental laws and policies to clearly divulge and evaluate the impacts. The City can't help but be deeply concerned that, by the time such an "assessment to study the potential risks to the City of Yreka's water supply facilities" is completed, as called for in the KHSA, decisions will have been made (e.g., certification of environmental documents) and actions initiated that will limit options for fair mitigation and/or compensatory actions to enable the City of Yreka to protect the viability of its vital water system.

Background Discussion of the Water System

While I know that you are familiar with how the City's water system is physically related to the issue of dam removal, before I continue with more specific comments about the Draft EIS/EIR I am providing the following brief summary of that relationship for reference.

The place of diversion on Fall Creek from which the City of Yreka obtains water for its municipal water system is located approximately 23 miles northeast of the City. Fall Creek is a tributary to the Klamath River, flowing into Iron Gate Reservoir from the north just below where the river enters the reservoir. The intake to the City's water system is located approximately one mile north and upstream of the point where Fall Creek enters the reservoir. The City's water permit 15379 (obtained from the State Water Board in 1967) stipulates that water diverted from Fall Creek by the City shall not exceed 15.0 cubic feet per second (cfs) with the maximum amount not to exceed 6,300 acre-feet per year.

Although the City's water permit allows the City to divert up to 15 cfs, there is a condition placed on the permit that requires the City to bypass certain minimum flows to mitigate biological impacts. In December 1966, the California Department of Fish and Game (DFG) protested the City's Fall Creek application to appropriate water from Fall Creek. One condition upon which DFG proposed to dismiss its protest was that the City agree to bypass a minimum flow of 15 cfs, or the natural channel flow of the stream whenever it is less than 15 cfs. In January 1967, the City agreed to that condition with the adoption of Resolution No. 880. Since May 1967 when the City's Fall Creek permit was issued, the permit has contained the condition for minimum bypass flow.

The City has two small diversion facilities involving Fall Creek that supply water to the system's intake structure. The "A" Dam diverts water to the intake building from a canal coming from PacifiCorp's Fall Creek hydroelectric powerhouse. (The relationship of the powerhouse with the City's diversion will be further explained below.) The City's "B" Dam is located on the natural Fall Creek channel and can divert water to the same intake as water from the "A" Dam. From the City's intake building, water is transported by a 24-inch pipe to the Yreka Fall Creek pump station and pre-treatment facility, located approximately 0.5 mile from the diversion site. The pipeline from the pump station crosses beneath the upper end of Iron Gate Reservoir and continues on to the City's water treatment and storage facilities and ultimately to the City of Yreka. The pipeline system also contains a cathodic protection system consisting of three rectifiers with anode ground beds. One of the rectifiers and ground beds is located adjacent to Iron Gate Reservoir.

As noted, a portion of the water that contributes to the City's Fall Creek water source comes via a diversion from Fall Creek for the PacifiCorp powerhouse. This source includes water diverted by PacifiCorp into Fall Creek from Spring Creek. That diversion is located on land managed by the Bureau of Land Management on the Oregon side of the California state line. Spring Creek, which has its source at Shoat Springs, is a tributary to Jenny Creek, which is located to the west of Fall Creek. Like Fall Creek, Jenny Creek also flows into Iron Gate Reservoir on the Klamath River. The diverted Spring Creek flow is carried through a canal 1.7 miles to where it enters Fall Creek.

According to the *PacifiCorp Klamath Hydroelectric Project Interim Operations Habitat Conservation Plan for Coho Salmon* (March 15, 2011), the small diversion dam on Spring Creek diverts up to 16.5 cfs into Fall Creek. The subsequent diversion dam on Fall Creek diverts up to 50 cfs of water that is transported by a canal and penstock to the powerhouse. The canal and penstock bypass 1.2 miles of a very steep gradient section of Fall Creek, including a steep stretch known as the "barrier falls". The Project's current FERC license requires minimum flows of 0.5 cfs below the Fall Creek diversion and 15 cfs (or natural stream flow, whichever is less) downstream of the powerhouse.

After the flow of water is used by PacifiCorp at the powerhouse, the water is directed to a canal that flows back to the natural Fall Creek channel. It is on this return canal that the City of Yreka maintains the "A" Dam, by which water is diverted to the intake structure. The "A" Dam is the primary diversion used by the City to supply water to the intake, but the City can also divert water directly from the creek via the "B" dam when necessary.

Below the City's "A" Dam diversion to the intake building, between that intake and the point where the canal from the powerhouse flows back into the natural Fall Creek channel, there is a fish hatchery established by the Department of Fish and Game. A small canal can divert water to the hatchery from the main canal from the powerhouse below the point where the City diverts water. The Draft EIS/EIR notes that the Department of Fish and Game has a 10-cfs water right (SWRCB 11681) for fish propagation between March 15 and December 15 each year, not to exceed 5,465 acre-feet per year. This fish hatchery is currently not in use.

Historic stream flow information is available for Fall Creek from a USGS gage that operated from 1933 to 1959. The gage (USGS gage no. 115120000) was located on Fall Creek just above the point where it flows into Iron Gate Reservoir. Table 1 below depicts monthly mean average discharge statistics and the annual average in cubic feet per second (cfs), as reported from the gage data. This table also reports the monthly "minimum" averages recorded during the 26 water years. Since the gage measurements indicated in Table 1 were made prior to the City initiating its Fall Creek diversion project per its 1967 permit, this information provides a portrayal of stream flow without that diversion. It is also noted that these measurements were taken after installation of the PacifiCorp powerhouse project and therefore include PacifiCorp's permitted diversion from Spring Creek into Fall Creek. The measurements were made after the point where the powerhouse canal returns water to Fall Creek.

Table 1
Fall Creek Mean Monthly Discharge Averages: 1933-1959
(Mean average/minimum averages in cubic feet per second – cfs.)

October	November	December	January	February	March	
35/27	37/26	43/28	46/28	51/27	49/29	
April	**May**	**June**	**July**	**August**	**September**	**Annual Average**
45/28	38/25	35/24	34/24	33/24	34/24	40/26

Source: Table 3-17, Federal Energy Regulatory Commission, Final EIS for Klamath Hydropower License, November 2007, page 3-71.

Comments and Opinions Concerning the Draft EIS/EIR

Project Objectives and Alternatives

As a general observation, I note that the Draft EIS/EIR Alternatives Report Section 2.1.2, Project Objectives, recognizes one of the six objectives of the project as: "4. Establish reliable water and power supplies, which sustain agriculture uses and communities and NWRs." (Appendix A, Page 2-2) Therefore, the reliability of the City's water system, which entails the security of the system as well as adequate quantities of water to meet the City's needs in the future, should be given more serious and detailed attention in the document. More dedication and effort is needed to evaluate and mitigate the impacts that the project may impose on the City's water supply and pipeline, as well as the related security and reliability of that water resource for the community of Yreka.

In the so-called Final Alternatives Report, (Draft EIS/EIR Section 4.2, Screening), an attempt was made to screen alternatives to conclude that Alternative 2 (the Proposed Action) meets consideration of all project objectives, including "reliable water supplies" because it, "Would establish diversion patterns based on year types in the KBRA to improve reliability of water supplies." (Page 4-1 and Table 4-1) The City of Yreka should contest that the constraints and impacts (which have not been fully evaluated) that the project will impose on the City's Fall Creek water supply (e.g., expected reductions in allowed diversion to enhance fishery habitat and increased vulnerability of the pipeline to damage by being exposed on a pipe bridge) indicate that the Draft EIS/EIR has not adequately demonstrated that the proposed action will meet the objectives of the project as stated, especially without complete analysis and mitigation of the City's related concerns. And, as will be discussed below, since the report did not consider other viable alternatives for replacement and protection of the City's pipeline, such alternatives need to be considered and not casually dismissed.

Significance Criteria

On Draft EIS/EIR page 3.8-13, concerning Water Supply and Water Rights, under recognition of "significance criteria" the document states that impacts would be significant if they would result in the following:

- Causing injury to existing water rights or adjudicated claims.
- Decreasing water supplies beyond what is needed for public health and safety (i.e., needs for drinking water and fire suppression) for the current population.

Since the Draft EIS/EIR does not adequately evaluate the full range of potential impacts to the City's water system, that document can not conclude that the impacts of the project, as proposed, relative to the City's water rights and water supplies will be less than significant. Furthermore, the listed significance criteria should have included impacts that may decrease permitted water supplies to meet planned growth. The City's current general plan is predicated on having an adequate future supply of water from Fall Creek, and the Draft EIS/EIR has not alleviated concern that the City's water resources to meet planned growth may be significantly constrained by the proposed project.

Deferred Analysis

While project documents state general concern about protecting the City's water system, and have expressed the intent to do so, the process including the KHSA and the Draft EIS/EIR has deferred and therefore failed to adequately address the issue. As noted in the introductory statement above, the Draft EIS/EIR does virtually nothing to address concerns expressed in the KHSA about impacts to the City's water system that could result from removal of the dams. The EIS/EIR should have done more to address the concerns expressed (but nonetheless deferred) in KHSA Section 7.2.3, Assessment and Mitigation of Potential Impacts to the City of Yreka. (KHSA, page 46) Again for emphasis, as noted above, the KHSA states: "As part of implementation of this Settlement, an engineering assessment to study the potential risks to the City of Yreka's water supply facilities as a result of implementation of Facilities Removal shall be funded and conducted by the Secretary." Such a study, which would be both an

engineering assessment and an impact analysis of "potential risks", needs to be conducted and incorporated into the Draft EIS/EIR.

Furthermore, we can note the vague proposal in the KHSA that, "Actions identified in the engineering assessment necessary to assure continued use of the existing, or equivalent replacement, water supply facilities by the City of Yreka shall be funded from the California Bond Measure and implemented." (KHSA page 46) This amounts to admission in the KHSA that removal of the dams may require mitigation to assure continued use of the existing water supply facilities, or require equivalent replacement of those facilities. But the Draft EIS/EIR makes no effort to identify and evaluate what those impacts may be. Also, the City has no assurance that such a Bond Measure will be approved, and neither the KHSA nor the Draft EIS/EIR explain how the impacts will be mitigated if the Bond funds are not approved.

Quite simply, the Draft EIS/EIR fails to take this timely and, I would contend, legally required opportunity under NEPA and CEQA to adequately address the potential impacts of the project on the City's water system, nor does that document consider and assure adequate mitigation measures for such impacts.

Pipeline Replacement

In Draft EIS/EIR Section 3.8, Water Supply/Water Rights (page 3.8-14), the analysis concludes that the water supply for Yreka, which is obtained from Fall Creek, would be unaffected by the relocation of the pipeline and relocation work, and that relocation of the Yreka Pipeline would result in no change from existing conditions. Obviously, the relocation of the pipeline onto a bridge across the river will change existing conditions by exposing the pipeline (which is currently underground or underwater) and rendering it vulnerable to vandalism and other damage that would threaten the City's water supply.

The Draft EIS/EIR does not adequately support its conclusion that there would be no change from existing conditions from flood risks from the relocation of the Yreka water supply pipeline. (Draft EIS/EIR Page 3.6-32 and Page 3.6-38) It apparently bases that conclusion only on how the crossing might affect flooding, but does not evaluate how the proposed change in how the pipeline crosses the river will impact the vulnerability and security of the City's critical water resource. That is a disturbing omission.

In Section 3.6, Flood Hydrology, the analysis briefly considers the potential for the relocation of the Yreka water supply pipeline to affect river flows and result in changes to flood risks. (EIS/EIR Page 3.6-32 and Page 3.6-38) It states that the pipeline could either be suspended from a pipe bridge across the river near its current location, or rerouted along the underside of the Lakeview Bridge (an alternative which is not even considered in the Final Alternatives Report) just downstream of Iron Gate Dam. The document states that the pipe bridge would be located above the 100 year flood line as the intention is to prevent the pipeline from being exposed to high velocity flows. The Section concludes that there would be no change from existing conditions from flood risks from the relocation of the Yreka water supply pipeline.

Actually, concerning a Lakeview Bridge alternative, I see no description or discussion in the Final Alternatives Report about an alternative that would take the City's pipeline west and cross the river by suspending it from the existing Lakeview Bridge, or from a possible new concrete replacement of the existing bridge. Mention of such an alternative simply emerges in numerous places in the Draft EIS/EIR.

That alternative (if we can call it that) is so problematic that it is questionable why it was considered at all. In any event, the references to possibly rerouting the water line west to the Lakeview Bridge fail to adequately consider the full impacts and costs of such a substantial change. Other than the possible construction of the crossing itself relative to the existing bridge, or possibly to a new "Lakeview Bridge", virtually nothing is said about the costs and environmental impacts of obtaining new easements and rerouting miles of pipeline to accommodate the new crossing, and then the formidable task of reconnecting the waterline to the City's system. Nor does the Draft EIS/EIR identify or evaluate the impacts of such a significant change on other design components and operational aspects of the City's water system, such as the need for additional pumping facilities and related costs.

As has been addressed in the letter from PACE Engineering (dated November 7, 2011), I too have concerns about the lack of information in the Draft EIS/EIR concerning the design of the proposed pipe bridge. I feel that the Draft EIS/EIR does not adequately evaluate the vulnerability of such an exposed crossing, and that there is a glib dismissal of other reasonable alternatives to bury the pipeline because, "the likelihood of encountering bedrock is high". (Appendix A, Page 5-13) Such an unspecified "likelihood" of bedrock is not an adequate reason to dismiss viable and perhaps preferred pipeline alternatives such as directional drilling or bore and jack installation which might better mitigate the potential impacts (e.g., the vulnerability of the City's water system on a exposed pipeline bridge).

Also, the Draft EIS/EIR, while it briefly mentions the interruption of water supply that will occur when the proposed new pipeline would be connected to the City's system, the details and significance of that interruption warrant more explanation and possibly mitigation to supplement the City's storage capacity. (Draft EIS/EIR page 3.18-19) The document too quickly and casually concludes that there would be no significant disruption of supply.

Furthermore, with all of the attention given these days to climate change, it is irresponsible for the Draft EIS/EIR to assume that designing a pipeline bridge to cross the Klamath River (which would presumably be unchecked because of the removal of the dams) for a 100-year storm event will adequately protect the City's critical waterline from inevitably larger storm events. A pipeline crossing designed for less than a 500-year event, including climate change variables, fails to adequately assure the City that the sole source of water to the community will be protected and secure from a devastating event that would, if it were to occur, take months to repair with prolonged interruption of water supply to the City.

Impacts from increased competition for water resources

It is my opinion that the Draft EIS/EIR does not adequately consider or mitigate for the impacts to the City's water resources that would result from the expected increase in the competition for water resources that can be expected relative to proposed habitat restoration on Fall Creek and/or Jenny Creek. The KHSA Appendix D states, "Additionally, if anadromous fish have passage to the Fall Creek following removal of the California dams, flows will be provided in the Fall Creek bypass reach to provide for the appropriate habitat needs of the anadromous fish species of any kind that are naturally and volitionally present in the Fall Creek bypass reach. Flows will be based on species specific habitat needs identified by the IMIC [Interim Measures Implementation Committee]." (KHSA page D-5)

Two main scenarios related to this change in conditions are possible, if not likely, and are not addressed in the Draft EIS/EIR. One is that the City (or PacifiCorp) will be increasingly pressured by state and/or federal agencies to bypass more water to satisfy habitat enhancement objectives. This will happen at times (late summer and early fall) when the City is most in need of ample water supply. The second possible scenario is that, in an effort to enhance habitat on Jenny Creek (which, like Fall Creek, would become habitat for anadromous fish after the removal of Iron Gate Dam), PacifiCorp will be pressured to stop or to reduce its diversion from Spring Creek, which is otherwise a tributary to Jenny Creek. As noted in this letter's background section, the current diversion of Spring Creek by PacifiCorp (up to 16.5 cfs) to Fall Creek is an important supplement to the flow of Fall Creek and the amount of water that is currently available both for the City's permitted diversion as well as habitat values on Fall Creek.

As noted above in the explanation of how the City obtains water from Fall Creek, during the late summer and fall months in low flow years (as indicated in Table 1 by the recorded "minimum" averages), monthly average flows as low as 24 cfs have been recorded in the months of June, July, August and September. At a flow of 24 cfs, the City's permit condition requiring bypass of 15 cfs would permit the City to divert not more than 9 cfs at a time of year when the City needs its full 15 cfs most. A flow of at least 30 cfs is needed for the City to intake 15 cfs and bypass 15 cfs . Furthermore, if PacifiCorp was to stop diverting water from Spring Creek (up to an allowed 16.5 cfs as noted above), the diminished flow of Fall Creek would further constrain the City's ability to intake 15 cfs.

The Draft EIS/EIR does not evaluate how removal of the dams will affect the quantities of water that will be needed by the various interests from Fall Creek, Jenny Creek and Spring Creek, and how the increased competition for water may adversely affect the City's reliance on those resources for current as well as planned future growth per the City's general plan. Consequently, the Draft EIS/EIR does not adequately consider mitigation measures that may be needed to compensate the City for adverse changes and impacts.

Mitigation Responsibilities Expected to be Shifted onto the City

Unfortunately for the City, because of the failure of the KHSA and the Draft EIS/EIR to adequately address the impacts of dam removal on Fall Creek and the City's water resources, it is expected that the burden of evaluating related changes affecting the resource will be passed on to the City. As a case in point, the City is currently working with the California State Water Resources Control Board, Division of Water Rights, to update the City's water rights from Fall Creek (permit 15379). The City needs to extend the time limit by which the City can divert up to 6,300 acre feet per year, as was approved in its original water right granted in 1967, as opposed to possibly being limited to a lesser amount because the City did not utilize the full amount by 2005. The City contends that the City will eventually need the full amount of water to support the growth that is anticipated in its General Plan, and that there will be a substantial burden on the City if it must develop alternate water resources. However, it appears that the State may place the burden on the City to evaluate the environmental impacts, largely because of concerns that the potential removal of Iron Gate Dam may change the circumstances of the City's diversion from Fall Creek (e.g., the potential influx of anadromous fish).

Therefore, in spite of statements in the KHSA that the parties shall agree not to oppose the City of Yreka's continued use of California State Water Right Permit 15379, which provides for the diversion of up to 15 cfs (KHSA page 46), the City is already required to bypass water for habitat enhancement and the City expects to be increasingly required to defend its 1965 water permit for use of 15 cfs and utilization of the full 6,300 acre feet per year because of the possibility that Iron Gate Dam may be removed.

It is ironic and unjust that it is just such a change in conditions and circumstances concerning the impacts of dam removal affecting the City's water rights that first the KHSA and now the Draft EIS/EIR for Klamath Facilities Removal have failed to adequately evaluate. How will the removal of Iron Gate Dam affect the City's ability to obtain and sustain its water resources (i.e., up to 15 cfs and up to 6,300 acre feet per year)? The Draft EIS/EIR fails to evaluate those impacts. But it is expected that resource agencies will be quick to challenge the City to document how its use of water may impact fishery resources in the event that the dams are removed. The City expects that the burden will ultimately be placed on the City to mitigate the impacts of the City's water rights on the habitat values of Fall Creek, rather than the EIS/EIR fulfilling its NEPA and CEQA responsibilities to evaluate the impacts that removal of the dams will have on existing conditions, including the City's water resources.

In closing, it is my summary opinion that there is virtually no adequate analysis of the potential impacts on the City's Fall Creek water supply in the Draft EIS/EIR to support the document's attempted conclusion that, "The deconstruction of Iron Gate Dam would have a less than significant impact on the City's water supply". (page 3.18-19) Such a conclusion, as well as other conclusions in the document about the absence of particular significant impacts on the City's water supply, are inadequate and unacceptable without the engineering and impact assessment that was admitted to be needed in the KHSA. Again, such an assessment could have and should have been completed prior to or as part of the EIS/EIR process. If there is any justifiable reason why the assessment was not completed and used for the NEPA/CEQA analysis, than so too should any conclusion be postponed concerning the significance or insignificance of the project's impacts on the City's water supply until an adequate assessment can be completed and appropriate mitigation measures proposed as needed.

Please let me know if you have any questions concerning these comments. I hope that the observations that I've made and opinions I've expressed are helpful to the City in preparing its comments in review of the Draft EIS/EIR. The proposed project has important ramifications to the City and the security of its water resource for years to come, and the agencies responsible for the document need to be more attentive and responsive in fully evaluating the potential impacts and adequately fulfilling their respective NEPA and CEQA duties.

Sincerely,

Merle Anderson, AICP
PMC Senior Planner

OCT 12 2004

Bradley G. Bledsoe Downes, Esq.
Dorsey & Whitney LLP
38 Technology Drive
Irvine, CA 92618

Dear Mr. Downes:

On June 12, 2003, on behalf of the Karuk Tribe of California (Tribe or Karuk), you requested that the National Indian Gaming Commission (NIGC) issue an Indian lands determination pursuant to the Indian Gaming Regulatory Act (IGRA), 25 U.S.C. §2719. You submitted a discussion of the restored lands exception under section 2719 as well as materials in support of the Tribe's claim that the exception applied. Additionally, on February 5, 2004, you submitted supplemental information at the request of John Hay. The Office of General Counsel has evaluated the Tribe's submission and determined that the land in question would not fall within the "restored lands" exception to section 2719's prohibition against gaming on trust land acquired after October 17, 1988.

Background

The Tribe provided historical background on the Tribe as well as information on the tribe's land acquisitions. The Karuk have 3,222 enrolled members, approximately one-third of whom reside in Siskiyou County. At issue is an approximately 200 acre parcel of land ("Yreka Property") located in the city of Yreka, Siskiyou County, California.

The Karuk began efforts in 1978 to receive Federal recognition. In November 1978, the Bureau of Indian Affairs Central Office (BIA) staff conducted a field trip to Northern California. The BIA determined that the aboriginal subentities of the tribe consisted of three communities located in Happy Camp, Orleans, and Siskiyou (Yreka). See 13 IBIA 76, 78; 1985 WL 69127 (I.B.I.A.). The Assistant Secretary for Indian Affairs, in a memorandum entitled "Revitalization of the Government-to-Government Relationship Between the Karok (sic) Tribe of California and the Federal Government," notified the local offices of the Bureau of Indian Affairs on January 15, 1979, that:

> Based on the findings collected . . ., the continued existence of the Karoks as a federally recognized tribe of Indians has been substantiated. In light of this finding, I am directing that the government-to-government relationship, with attendant Bureau services within available resources, be re-established.

67 Fed. Reg. 46328-46333 (2002).

The Tribe acquired land in trust in 1979 via Gift Deed from the State of California to the United States for land located in Happy Camp, California. The Tribe also acquired several parcels of land in trust in Happy Camp, California in 1987. Additionally, the Tribe acquired a parcel of land located in Yreka, Siskiyou County ("1989 Trust Land"), that was then accepted in trust by the United States for the benefit of the Tribe on April 26, 1989. In addition to the properties detailed above, the Tribe, throughout the 1990's, acquired numerous other parcels of land in both Siskiyou and Humboldt Counties, that are now held in trust. In 1997 the Tribe acquired additional land ("Yreka Property") contiguous to the Tribe's 1989 Trust Land. The Department of the Interior accepted the Yreka Property in trust in March 2001. It is this property on which the Tribe now wishes to conduct gaming. Because this parcel was taken into trust after October 17, 1988, for gaming to be legal under IGRA, it must fall within one of IGRA's exceptions to the prohibition on gaming on lands acquired into trust after October 17, 1988.

The Tribe submitted the following in support of its claim that the parcel in question was restored: Request for Indian Lands Determination, Dated June 12, 2003; 1989 Trust Land Legal Description; Yreka Property Legal Description(s); Parcel Map; Treaty R (unratified); Schedule of Indian Land Cessions; California Map; Revitalization Memorandum; Karuk Tribal Constitution & Bylaws; Notice of Proposed Decision – November 2000; Near Reservation Designation; Karuk Tribal Housing Authority Ordinance; Cooperative Agreement; Karuk Tribal Sales Tax Ordinance; Karuk Tribal Prevailing Wage Ordinance; Karuk TERO; Karuk Tribal Election Ordinance; 1987 Tribal Resolution; table listing all tribal property; Gift Deed dated August 22, 1979; Grant Deed dated March 6, 1987; maps for Holmes, Borg & Bowers parcels; map for Tebbe parcel; map titled O'Hair annexation; aerial photograph of Karuk land in Yreka; Deed Dated March 24, 1999; Deed Dated May 6, 1999; and a Deed Dated May 6, 1999 for assessors parcel number 062-151-490.

Lands Acquired in Trust by the Secretary After October 17, 1988

Under Section 2719(a) of IGRA, gaming is prohibited on lands acquired by the Secretary of the Interior into trust for the benefit of an Indian tribe after October 17, 1988, unless the land falls within certain exceptions listed in 25 U.S.C. § 2719(b). Accordingly, we must review the exceptions to determine whether a tribe can conduct gaming on after-acquired trust lands.

The Tribe contends that the proposed site meets the requirements of the exception set forth at 25 U.S.C. § 2719(b)(1)(B)(iii) – "restoration of lands for an Indian tribe that is restored to Federal recognition" – and therefore is outside the proscriptions on after-acquired land. To determine whether the Tribe meets the restoration exception we must determine, first, whether the Tribe is a "restored" tribe and, second, whether the land was taken into trust as part of a "restoration" of lands to the Tribe.

"Restored" Tribe

The key terms, "restored" and "restoration" are not defined in the text of IGRA. Nor are they defined in the various federal regulations issued by the NIGC and the Department of the Interior to implement IGRA.

The U.S. District Court for the Western District of Michigan addressed the definition of "restored" and "restoration" in *Grand Traverse Band of Ottawa and Chippewa Indians v. United States Attorney*, 198 F. Supp. 2d 920 (W.D. Mich. 2002); aff'd, 369 F.3d 960 (6th Cir. 2004). At issue was whether the Grand Traverse Band was a restored tribe and whether the parcel on which gaming was conducted were restored lands. The *Grand Traverse* court held that both "restored" and "restoration" should be given their ordinary meaning ("In no sense has a proprietary use of 'restore' or 'restoration' been shown to have occurred." *Id.* at 931). Applying the ordinary meaning of the words, the court concluded that the Band's history showed that the Band was in fact restored:

> In sum, the undisputed history of the Band's treaties with the United States and its prior relationship to the Secretary and the BIA demonstrates the Band was recognized and treatied with by the United States . . . Only in 1872 was the relationship administratively terminated by the BIA. This history – of recognition by Congress through treaties (and historical administration by the Secretary), subsequent withdrawal of recognition, and yet later re-acknowledgment by the Secretary – fits squarely within the dictionary definitions of "restore" and is reasonably construed as a process of restoration of tribal recognition. The plain language of subsection (b)(1)(B) therefore suggests that this Band is restored.

Grand Traverse Band at 933.

An examination of the Karuk history shows that it is similar to the pattern in the case of Grand Traverse Band. However, there does not seem to be any evidence that this relationship was ever administratively terminated as in the Grand Traverse case. The Karuk entered into a treaty with the United States in 1852. The United States dealt with the Tribe as a government entity in an effort to convince them to settle on the Hoopa Valley Reservation. Though these efforts failed, the United States continued to provide benefits to individual members of the Tribe but did not appear to have any further dealings with the Tribe as an entity. Then, in 1979, by action of the Secretary, the government-to-government relationship was "re-established" with the Tribe.

Based on the fact that the Tribe negotiated treaties with the United States it can clearly be stated that there existed a government-to-government relationship at one time. However, the Tribe provided no evidence of any affirmative action by the United States to terminate the relationship with the tribe. In other words, we have no evidence supporting a conclusion that the United States withdrew its recognition of the Tribe. The

information provided by the Tribe states only that while the United States provided benefits to individual tribal members that it had no dealings with the Tribe as a distinct entity. The Tribe has provided a memo dated January 15, 1979, from the Assistant Secretary for Indian Affairs to the Sacramento Area Director instructing that the government-to-government relationship be re-established and that the tribes name is to be added to the list of federally recognized tribes. The memo states:

> Based on the findings collected. . ., the continued existence of the Karoks (sic) as a federally recognized tribe of Indians has been substantiated. In light of this finding, I am directing that the government-to-government relationship, with attendant Bureau services within available resources, be re-established

67 Fed. Reg. 46328-46333 (2002).

However, no information has been provided to substantiate a claim that the United States terminated the relationship with the tribe. Therefore, without more, we are not prepared to find that the Tribe qualifies as "an Indian tribe that is restored to Federal recognition" under 25 U.S.C. § 2719(b)(1)(B)(iii).

Restoration of Lands

Even if we could conclude that the Tribe is "restored" within the meaning of IGRA, we could not conclude that the land at issue was "taken into trust as a part of . . . the restoration of lands for an Indian tribe that is restored to Federal recognition." 25 U.S.C. § 2719(b)(1)(B)(iii).

Federal courts, the Department of the Interior, and NIGC have recently grappled with the concept of restoration of land. In so doing, they established several guideposts for a restoration-of-land analysis. First, "restored" and "restoration" must be given their plain, primary meanings. *Grand Traverse Band II at 928(W.D. Mich 2002)* aff'd, 369 F.3d 960 (6th Cir. 2004); *Confederated Tribes of Coos, Lower Umpqua & Siuslaw Indians v. Babbitt ("Coos")*, 116 F. Supp.2d 155, 161 (D.D.C. 2000). In addition, to be "restored," lands need not have been restored pursuant to Congressional action or as part of a tribe's restoration to federal recognition. *Grand Traverse Band of Ottawa and Chippewa Indians v. United States Attorney for the Western District of Michigan ("Grand Traverse Band I")*, 46 F. Supp.2d 689, 699 (W.D. Mich. 1999); *Coos* at 164. The language of section 2719(b)(1)(B)(iii)—"restoration of lands for an Indian tribe that is restored to Federal recognition"—"implies a process rather than a specific transaction, and most assuredly does not limit restoration to a single event." *Grand Traverse Band II* at 936; *Grand Traverse Band I* at 701.

Nonetheless, there are limits to what constitutes restored lands. As NIGC stated in the Grand Traverse Opinion, "[W]e believe the phrase 'restoration of lands' is a difficult hurdle and may not necessarily be extended, for example, to any lands that the tribe conceivably once occupied throughout its history." NIGC Grand Traverse Opinion,

dated August 31, 2001, at p. 15; *see also* Office of the Solicitor's Memorandum Re: *Confederated Tribes of Coos, Lower Umpqua & Siuslaw Indians v. Babbitt* (Office of the Solicitor's Coos Opinion) ("It also seems clear that restored land does not mean any aboriginal land that the restored tribe ever occupied," p. 8).

The courts in *Coos* and *Grand Traverse Band I* and *II* noted that some limitations might be required on the term "restoration" to avoid a result that "any and all property acquired by restored tribes would be eligible for gaming." *Coos* at 164; *Grand Traverse Band I* at 700; *see also Grand Traverse Band II* at *934-935 ("Given the plain meaning of the language, the term 'restoration' may be read in numerous ways to place belatedly restored tribes in a comparable position to earlier recognized tribes while simultaneously limiting after-acquired property in some fashion") aff'd, 369 F.3d 960 (6th Cir. 2004). All three courts proposed that land acquired after restoration be limited by "the factual circumstances of the acquisition, the location of the acquisition, or the temporal relationship of the acquisition to the tribal restoration." *Id.*

In addition to the above referenced sources, we also consulted our restored lands opinions with regard to the Bear River Band of Rohnerville Rancheria, (See Memorandum from NIGC Acting General Counsel to NIGC Chairman Deer, Re: Whether gaming may take place on lands taken into trust after October 17, 1988, by Bear River Band of Rohnerville Rancheria, dated August 5, 2003) (NIGC Rohnerville Opinion); the Mechoopda Indian Tribe of Chico Rancheria (See Memorandum from NIGC Acting General Counsel to NIGC Chairman, Re: Whether gaming may take place on lands taken into trust after October 17, 1988, by the Mechoopda Indian Tribe of the Chico Rancheria, dated March 14, 2003) (NIGC Mechoopda Opinion); and the Wyandotte Tribe, (See Memorandum from NIGC Acting General Counsel to NIGC Chairman Hogen, Re: Legality of Gaming Under IGRA on the Shriner Tract owned by the Wyandotte Tribe, dated March 24, 2004)(NIGC Wyandotte Opinion).

In this case, these factors (factual circumstances, location and temporal relationship) and our review of agency and judicial precedent lead us to conclude that the Tribe's land acquisition is not a "restoration."

1. Factual Circumstances of the Acquisition

The Tribe acquired the Yreka parcel, approximately 200-acres in 1997. The Tribe conveyed the parcel to the United States in May 1999. The Department of Interior accepted the parcel in trust in March 2001. The Tribe's acquisition arose in the following context:

Between 1985 and 1987 the Tribe acquired three parcels of land. In 1987 and 1988, the Tribe applied for the three parcels to be acquired in trust by the United States for the benefit of the Tribe. Those three parcels are located in Happy Camp, California, along the Klamath River east of Happy Camp, and in Yreka, California.

In 1987, the Tribe applied for and received funding from the Department of Housing and Urban Development for the purchase of land ("1989 Trust Land"). On May 3, 1988, the Tribe conveyed the land to the United States to be held in trust. The parcel was accepted in trust in April 1989.

The Yreka Parcel is contiguous to the 1989 Trust Land. Similarly, it was acquired through funding provided by the Department of Housing and Urban Development for the purpose of providing additional housing to Tribal members.

"Restoration" denotes a taking back or being put in a former position. *Coos* at 162. It might mean "reacquired." *Id.* ("The 'restoration of lands' could be construed to mean just that; the tribe would be placed back in its former position by reacquiring lands.") In any event, "restoration" does not mean, "acquired." We therefore must look further for indicia that the land acquisition in some way restores to the Tribe what it previously had.

2. Location

Restored lands may include off-reservation parcels; however, there must be indicia that the land has in some respects been recognized as having a significant relation to the Tribe. *Grand Traverse Band I* at 702. In *Grand Traverse II*, the court held that the lands at issue were restored because they lay within counties that had previously been ceded by the tribe to the United States. *Grand Traverse Band II* at 936. This ruling was consistent with its opinion in *Grand Traverse I*, in which the court stated that the land's location "within a prior reservation . . . is significant evidence that the land may be considered in some sense restored." *Id.* In its *Grand Traverse Opinion*, NIGC further found that restoration was shown by the Band's "substantial evidence tending to establish that the . . . site has been important to the tribe throughout its history and remained so immediately on resumption of federal recognition." Grand Traverse Opinion at 15. The tribe's history includes the ceding of that site to the United States by the ancestors of the present tribe in an 1836 treaty. *Id.* at 9-10, 16. As a result, NIGC concluded that the Band had a "historical nexus" to the land. *Id.* at 17.

A.L. Kroeber, a noted ethnologist, observed that there were at least three Karuk towns that were located at the mouths of Camp Creek, Salmon River, and Clear Creek. Kroeber, A.L., *Handbook of the Indians of California*, Smithsonian Institution, Bureau of American Ethnology, Bulletin 78, p. 99 (G.P.O. 1923). The Tribe used the tributaries of the Klamath River for hunting and gathering territories. *Id.* at 100. Kroeber observed:

> The land of the Karok is substantially defined by [an] array of villages along the Klamath. There were few permanent settlements on any affluents. All of these were owned by the Karok, and more or less used as hunting and food gathering territories to their heads; so that technically their northern boundary followed the watershed bordering the Klamath. The only exception was in the case of the largest tributary, the Salmon, about whose forks, a dozen miles up, were the Shastin Konomihu. The

Karoks seem to have had rights along this stream about halfway up to the fork.

Id.

In a treatise published 13 years after his Handbook, Kroeber identified a 60 mile stretch of the Klamath running from the Trinity River confluence east to at least a point east of what is now Happy Camp and opined that it is likely that the historic Karuk settlements were situated an additional 30 miles east on the Klamath, which includes that area where the Yreka parcel is located. Kroeber, A.L., Karok Towns, Univ. of California Publications in American Archaeology and Ethnology, Vol. 35, No. 4. pp. 29-38.

The Karuk lands and property were destroyed upon the arrival of "a swarm of miners and packers" in 1850 and 1851:

> The usual friction, thefts, ambushing and slaughters followed in spots. The two sacred villages near the mouth of the Salmon, and no doubt others, were burned by the whites in 1852; and a third, Orleans, was made into a county seat. There were, however, no formal wars; in a few years the smaller richer placers were worked out; . . . and the Karok returned to what was left of their shattered existence. Permanent settlers never came to their lands in numbers; the Government established no reservation and left them to their own devices; and they yielded their old customs and their numbers much more slowly than the majority of California natives.

Handbook at p. 98.

Between March 19, 1851, and January 7, 1852, agents for the United States entered into 18 treaties with the "Indians of California." *See Thompson v. United States*, 122 Ct. Cl. 348 (Ct. CL. 1952). Lands constituting the Karuk Tribe's aboriginal territory were the subject of Treaty R, dated November 4, 1851. The Karuk and other Indians of California agreed to relinquish their claims to their aboriginal territory in exchange for reservations of land totaling an estimated 8,518,900 acres pursuant to the 18 unratified treaties. *See Indians of California v. United States*, 102 Ct.Cl. 837 (Ct.Cl. 1944). Unfortunately, this treaty does not specify which of the 8,518,900 acres belonged to the Karuk and which were attributed to the other Tribes signing the treaty

The Tribe provided the Schedule of Indian Lands Cessions that records their reservation of land and cession of its claim to "all other territory" under the unratified treaty. The record shows a cession of claims to territory noted as "306"and reserved lands as "305" on a map of California. Again, it is not clear from these records which of the area was specifically attributed to the Karuk.

In its Notice of Proposed Decision to take the Yreka parcel into trust dated November 3, 2000, BIA Regional Director Ronald Jaeger stated that, "Within the Karuk's ancestral territory and neighboring areas, many tribal trust parcels are located

within the Siskiyou and Humboldt County boundaries. One tract is within the city limits of Yreka . . ." However, this proposed decision is not clear as to whether the parcel in question is ancestral territory or a neighboring area and is therefore not helpful to our analysis.

In our Rhonerville opinion, we found that the Tribe has a longstanding historical and cultural connection to the parcel at issue. The parcel was located within one mile of two aboriginal villages and two major trails. It was located within three miles of five aboriginal villages. Also within three or four miles from the parcel was the site of a mythic flood in a tribal story telling. Furthermore, the parcel was located 6 miles from the tribe's original Rancheria, which was purchased by the United States for the Rohnerville Indians in 1910. The Rhonerville Tribe was terminated in 1962, and the Rancheria was divided and distributed to individual Indians. At the time the Rancheria boundaries were re-established in 1983, there were still 6 acres in individual Indian ownership. We found that, based on this information, the area had historical and cultural significance to the Tribe. It was also important in our determination that tribal members resided on the original Rancheria at the time of termination. Rhonerville Opinion at 10.

In contrast, we do not find that the Tribe has a sufficient historical nexus to the Yreka parcel to qualify it as restored land. The evidence provided by the Tribe that the parcel was once the location of aborginal settlements is scant and based largely on the speculation of an ethnologist who stated that it is "likely" that there existed tribal settlements in the parcel area. Additionally, the Tribe has not provided evidence that the parcel remained important to the tribe throughout history.

3. Temporal Relationship of Acquisition to the Tribal Restoration

Although the Karuk were not located on a reservation, no attempt was made to purchase land to establish a reservation for the Karuk. The federal government had attempted to relocate the Karuk from the upper Klamath River region to the Hoopa Valley Reservation with no success. *See Karuk Tribe v. United States*, 41 Fed. Cl. 468 at 469-470 (Ct. Cl. 1998). The Karuk people refused to be relocated and retreated to the high ground away from the Klamath River. *See Karuk Tribe of California v. United States*, 209 F.3d 1366, 1379 (Fed. Cir. 2000).

From the time that the Karuk as a group refused to move to the Hoopa Valley reservation to the filing of the litigation in *Short v. United States*, 202 Ct. Cl. 870 (Ct. Cl. 1973), the Karuk existence as a separate tribal entity was in limbo and largely entangled in the Hoopa – Yurok and Karok (sic) land disputes.

The Karuk began efforts in 1978 to reestablish government-to-government ties. In November 1978, the Bureau of Indian Affairs Central Office staff conducted a field trip to Northern California. The BIA determined that the aboriginal subentities of the tribe consisted of three communities located at Happy Camp, Orleans, and Siskiyou (Yreka). *See* 13 IBIA 76, 78, 1985 WL 69127 (I.B.I.A.). However, the BIA made no

determination as to the significance of these communities throughout the history of the Tribe.

If we were able to conclude that the Tribe was restored in 1979, we would look to the history of the Tribe's land acquisitions. The land at issue was acquired in 1997, and was taken into trust in 2001. According to the list of tribal property supplied by the tribe, the tribe had four parcels of land held in trust prior to 1988. Between 1989 and the present, it appears that the tribe has placed an additional seven parcels of land in trust. The tribe also holds numerous other lands in fee. The parcel at the heart of this determination was taken in to trust in 2001.

At the heart of this inquiry is the question of whether the timing of the acquisition supports a conclusion that the land is restored. In its Office of the Solicitor's Coos Opinion, the Department of the Interior found that a fourteen-year lapse between a tribe's restoration and the acquisition of land into trust did not foreclose a finding that the land was restored. The Associate Solicitor reasoned that, "the mere passage of time should not be determinative" and that "the Tribes quickly acquired the land as soon as it was available and within a reasonable amount of time after being restored." Likewise, the NIGC in its Mechoopda Lands Opinion found that a nine-year lapse between restoration and acquisition was sufficient to establish a sufficient "temporal relationship." The NIGC placed significant weight on the fact that it was the tribe's first land acquisition after being restored. More recently, the NIGC in its Wyandotte Lands Opinion found that an 18 year passage of time was too long to be considered a restoration.

We conclude that the facts surrounding the timing of the acquisition do not support a determination of "restored land." To the extent that we could conclude that the Tribe was restored, the land was still acquired eighteen years after the government-to-government relationship was re-established. It was then another four years before the parcel was taken into trust. Assuming, that the 1979 re-establishment of government-to-government relations is the only possible date for a tribal restoration, the twenty-two-year gap, coupled with the fact that the tribe acquired numerous other parcels of land in trust, during the interim, leads us to conclude that there is not a sufficient "temporal relationship" between any restoration and the lands acquisition. Perhaps if the Tribe met the other factors, we might be willing to push the outer limits of what has previously been considered an acceptable delay. However, that is not the case here. Furthermore, here, the Tribe acquired many parcels of land soon after its relationship with the federal government was re-established. We conclude that, if any land were to be considered restored, it would be the earlier intervening land.

Conclusion

A close examination of the documentation submitted shows that the Tribe does not have a sufficient "temporal relationship" nor is there a sufficient "historical nexus" to fall within the restored lands exception to Section 2719. Further, while not dispositive, the materials submitted by the Tribe raise questions as to whether it was truly restored. The Tribe may not therefore lawfully conduct gaming on its proposed site.

The Office of the Solicitor concurs with this opinion. If you have any questions, John Hay, Staff Attorney, is assigned to this matter.

Sincerely,

Penny J Coleman

Penny J. Coleman
Acting General Counsel

City of Yreka
701 Fourth Street • Yreka, CA 96097
(530) 841-2386 • FAX (530) 842-4836

May 5, 2011

Gordon Leppig
Staff Environmental Scientist
California Department of Fish and Game
619 Second Street
Eureka, CA 95501

RE: Request for Information on Cumulative Projects

Dear Mr. Leppig:

Thank you for this opportunity to continue to participate in the environmental review for the Environmental Impact Statement / Environmental Impact Report (EIS/EIR) on whether to remove dams on the Klamath River in California and Oregon project. The City of Yreka is very concerned that there will be significant direct and indirect impacts associated with implementation of the proposed action. Rural communities rely on a very slim budget margin to provide essential services. Money spent by tourists in and around the City of Yreka makes up a substantial percentage of the city's general fund revenue. With restrictions on access to the national forest, and now the potential removal of two significant water features, the city believes that it will experience a significant decline in tourism, and the associated revenue.

While this letter attempts to quantify the city's concerns, we believe it will be very difficult to know the full extent of some of the impacts.

1. The City of Yreka receives a substantial portion of its General Fund from tourism. The revenues are more than simple Transient Occupancy Tax (TOT) for a hotel, which in 2009/2010 amounted to $588,000 and is approximately 12% of the General Fund revenue, but extends to food (both restaurants and grocery stores), gas, and other retail sales in the city. Unlike some of the other revenues received by the city, tourism dollars directly affect the General Fund which is used to pay for police services, as well as public works, road maintenance and community enhancement. A substantial reduction in tourism will result in less general fund revenue that could lead to physical blight in the community and a general degradation of the quality of life in Yreka.

2. Reducing the ability of the city to manage the community and provide public safety has a compounding affect on other harder to measure issues. For example, a loss in tourism will lead to closure of locally owned businesses and likely result in boarded-up buildings, unkempt lots and a general decline in the

commercial infrastructure. From experience we know that a poor economic outlook discourages future investment. Without that investment the city will not realize the anticipated population growth, and would have difficulty meeting its financial obligations. For example the city has recently borrowed $6,810,000 to upgrade the water system. As only a small portion of the upgrades address future growth, the bulk of the loan must be paid through monthly user fees. A reduction in population would result in less revenue and the city would have to resort to using the General Fund to make its loan payments. As noted above, the General Fund would also be less due to the economic downturn brought about by the proposed action further burdening the residents of the city.

3. Elimination of the Copco reservoir will expose the city's only water source. The pipeline will need to be undergrounded, relocated or otherwise protected to ensure a safe and reliable water supply for the city. While we have regular projects underway that address our aging infrastructure, we have no project or funding source identified to protect our waterline under Copco reservoir should it become exposed. This would be a direct impact to the City of Yreka. Because of all of the other factors noted above, the city will be unable to pay for these modifications brought about by the proposed action.

We believe that consideration of these issues which can be directly linked to the proposed action is essential to understanding the full impact of the action on the City of Yreka. We note that fishing is not the only tourism draw to the area, and that replacing lake fishing with stream fishing would not address the other activities such as bird watching and hunting associated with migratory birds drawn to the water.

The city continues to be wary of this effort because we do not believe that all of the potential impacts can be known, and seemingly minimal effort has been spent solving issues that have been raised. While we have addressed some of our concerns in this letter, we cannot anticipate what future projects might be affected by the removal of these structures.

Attached is a City of Yreka Public Works list of Fall Creek Water Improvement Project components that might be affected by the project.

Again, we appreciate being kept informed of the process to date, and the opportunity to submit our comments.

Sincerely,

Steven Baker
City Manager

Summary of Fall Creek Water Improvement Project Components

1. Expand the Fall Creek Pump Station: Addition of the fourth pump to the Fall Creek Pump Station will increase its firm capacity to meet existing and future maximum daily demands (MDD's).

2. Filter Pump Station/Primary Coagulant Facilities: The primary coagulant would be added at the new facilities prior to a pipeline flocculator, thus converting from inline to direct filtration. This will allow CDPH to classify the plant as an approved technology, and thus meet the EPA's Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR).

The Filter Pump Station would be added immediately upstream of the primary coagulant injection point and increase the hydraulic capacity of the Fall Creek Transmission Main to meet existing and future MDD's.

3. Water Treatment Plant Upgrade: Two new filters measuring 8 feet in diameter by 33 feet in length would be added to provide for redundancy and nominal growth. Addition of magnetic flow meters and modulating control valves to the 8 existing filters will provide filtration and filter to waste flow control and prevent hydraulic overloading of the various filters. Conversion of the existing single bypass valve to a double-block and bleed configuration will provide a more positive separation between the existing raw and treated water mains.

Replacement of the 40-year old filter control panel and upgrading the existing SCADA system, including incorporation of the new Filter Pump Station/Primary Coagulant Facilities will increase operation flexibility and treatment system reliability and may reduce operation costs. Addition of a 60 KW Emergency Power Generator will improve flexibility and add reliability to the Water Treatment Plant (WTP).

4. 2.5 Million Gallon Clear Well: Addition of a Clear Well downstream of the WTP will provide a continuous flow of treated water into the system during the filter backwash periods and during periods of WTP shutdown due to extraordinarily high raw water turbidity, thus, increasing water system reliability.

5. Backwash Pond Improvements: Addition of a backwash containment tank with recycling of decanted water and sludge disposal to the existing pond system will bring the City into compliance with State regulations regarding discharges to surface waters.

6. Zone 1 and 3 Supply Mains: Replacement of an undersized pressure reducing station and undersized supply mains to Zone 1 and 3 will result in a significant energy savings and reduced operation costs for the City.

7. Supplemental Improvements: Rehabilitation of the Butcher Hill Reservoir by installing a concrete foundation will greatly increase its reliability and extend its useful service life. Likewise, upgrading the existing distribution system telemetry system will greatly increase the reliability of the overall water system and allow City staff to optimize the use of available storage capacity and minimize pumping energy use.

RESOLUTION NO. 2939

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF YREKA JOINING IN EIR/EIS COMMENTS OF THE COUNTY OF SISKIYOU

WHEREAS, the Department of the Interior has recently released the Klamath Facilities Removal Public Draft Environmental Impact Statement/Environmental Impact Report; and,

WHEREAS, this Report will be used to inform the Secretarial Determination in conjunction with the Klamath Hydroelectric Settlement Agreement (KHSA) and the Klamath Basin Restoration Agreement (KHSA); and,

WHEREAS, the City of Yreka is in opposition to a determination that would result in the removal of the Klamath hydroelectric facilities; and,

WHEREAS, due to the lack of resources and other economic limitations, it is to the benefit of the City if it is allowed to participate in the comments of the County of Siskiyou,

NOW, THEREFORE, BE IT RESOLVED that the City of Yreka joins in the comments to be filed by the County of Siskiyou with respect to the Draft EIR/EIS involving the Klamath dams.

BE IT FURTHER RESOLVED that the City of Yreka authorizes a copy of this Resolution to be provided with the comments of the County of Siskiyou and filed concurrently therewith as evidence of the adoption of the County's comments as the comments of the City.

PASSED AND ADOPTED this 3rd day of November, 2011, by the following vote:

AYES: FOSTER, MCNEIL & SIMMEN
NOES: NONE
ABSENT: Bicego & MERCIER
ABSTAIN: NONE

Rory McNeil,
Mayor of the City of Yreka

APPROVED AS TO FORM:

Mary Frances McHugh, City Attorney

Attest:
Elizabeth E. Casson, City Clerk

\\GOLDNUGGET\USERS\MARYFRANCES\MY DOCUMENTS\DOCUMENTS_WATER\FALL CREEK\SECRETARIAL DETERMINATION KHSA-KBRA\CITY OF YREKA RESOLUTION RE JOINDER KLAMATH FACILITIES REMOVAL PUBLIC DRAFT EIS-EIR.DOC

Mary Frances McHugh

From: Rob Taylor
Sent: Tuesday, January 11, 2011 10:00 AM
To: 'manderson@pmcworld.com'
Subject: FW: Fall Creek Intake Dwgs

From: Hepler, Thomas E [mailto:THepler@usbr.gov]
Sent: Wednesday, October 27, 2010 9:31 AM
To: Rob Taylor
Subject: RE: Fall Creek Intake Dwgs

Thanks for your responses. Would you mind providing GPS coordinates for us? Stand on what you believe to be pipe centerline (or are there any vertical access risers?) on either side of the river and get GPS for those locations. That would be adequate for our designs now.

Anything you can provide us from PACE would be welcome as well. What level of flood protection would City require for this pipeline?

Thanks.

Tom Hepler
10/27/2010

From: Rob Taylor [mailto:rtaylor@ci.yreka.ca.us]
Sent: Monday, October 25, 2010 3:05 PM
To: Hepler, Thomas E
Subject: FW: Fall Creek Intake Dwgs

Hi Tom,
I apologize for taking so long to get back to you.

1. ***Average diversion discharge through city water supply pipes, or normal operating range (including pipe from Dam B, as well as main line crossing Iron Gate).***
   15 cfs is our water right and our design capacity. I have attached a spreadsheet that shows our current and historical water usage. The "Raw (MG)" column is read on the meter at the pump plant (as the pumped water leaves the building) and represents the amount of water diverted from Fall Creek and the water that crosses Iron Gate. We do not take water from the B Dam under normal conditions and I don't believe that there is sufficient flow from the B Dam to draw from it exclusively at this time since most of the water is diverted through the powerhouse. The only time that we do take water from the B Dam is when PP&L does its annual diversion canal maintenance. The maintenance lasts for about 2 weeks and is usually done in the early summer. During maintenance, PP&L diverts all water from the canal to the Fall Creek channel and we open the valve at the B Dam so that the water will flow from the B Dam to the A Dam impoundment.
2. ***Normal operations of spillway and sluice gate at Dam A, which control water surface at intake building.***
   We operate the sluice gate so that water is always flowing over the spillway and the water level stays the same. The sluice gate is typically only open a few inches to keep submerged debris from building up in the bottom of the impoundment.
3. ***Normal releases from Fall Creek Powerhouse, or normal operating range.***
   We do not have any flow data from the powerhouse, but so far, the volume of water that is diverted by PP&L has always been sufficient. I think PP&L may have a measuring station upstream of the powerhouse.

Mary Frances McHugh

From: Rob Taylor
Sent: Monday, October 25, 2010 2:05 PM
To: Hepler, Thomas E
Subject: FW: Fall Creek Intake Dwgs

Hi Tom,
I apologize for taking so long to get back to you.

1. ***Average diversion discharge through city water supply pipes, or normal operating range (including pipe from Dam B, as well as main line crossing Iron Gate).***
   15 cfs is our water right and our design capacity. I have attached a spreadsheet that shows our current and historical water usage. The "Raw (MG)" column is read on the meter at the pump plant (as the pumped water leaves the building) and represents the amount of water diverted from Fall Creek and the water that crosses Iron Gate. We do not take water from the B Dam under normal conditions and I don't believe that there is sufficient flow from the B Dam to draw from it exclusively at this time since most of the water is diverted through the powerhouse. The only time that we do take water from the B Dam is when PP&L does its annual diversion canal maintenance. The maintenance lasts for about 2 weeks and is usually done in the early summer. During maintenance, PP&L diverts all water from the canal to the Fall Creek channel and we open the valve at the B Dam so that the water will flow from the B Dam to the A Dam impoundment.
2. ***Normal operations of spillway and sluice gate at Dam A, which control water surface at intake building.***
   We operate the sluice gate so that water is always flowing over the spillway and the water level stays the same. The sluice gate is typically only open a few inches to keep submerged debris from building up in the bottom of the impoundment.
3. ***Normal releases from Fall Creek Powerhouse, or normal operating range.***
   We do not have any flow data from the powerhouse, but so far, the volume of water that is diverted by PP&L has always been sufficient. I think PP&L may have a measuring station upstream of the powerhouse.
4. ***Information on city pump house – pump capacity, flowrates, head, etc.***
   The Fall Creek Pumping Plant has 3 – 400 hp pumps rated at 2500 gpm each with a fourth pump scheduled to be installed within the next 2 years. The pumps discharge to a 135,000 gal tank several miles away through the 24" concrete lined steel pipeline. The static head pressure to the Klamath Pass Tank is about 240 psi and the discharge head about 260 psi. The pumps operate based on the level of the tank – if the tank level gets to 12 feet, the (lead) pump will start. If the tank level gets to 9 feet, the (lag) pump will also start. If it gets to 7 feet, the (lag,lag) pump will start. The system is designed for up to 3 pumps to operate at one time with the fourth pump to be available as a backup. The proposed fourth pump will be variable speed drive (VFD). During a typically summer (high demand) day, one pump will run constantly and a second pump will turn on and off intermittently throughout the day as the Klamath Pass Tank level slowly fluctuates. In the winter, 1 pump will start and stop as needed.
5. ***Any as-built drawings showing current alignment of pipe from Dam B into intake house (shown in sketch)***
   The Fall Creek plans that I sent are as-builts (or were 40 years ago). We don't have anything current, but I don't think much has changed. We should verify everything in the field before any final designs.
6. ***Comments on potential to run powerline into intake house.***
   There is available power upstream, at the powerhouse, and below at the Pumping Plant. As far as I know, the property surrounding the A Dam is owned by PP&L so I don't know if an easement would be needed.
7. ***Know of any potential concerns for entraining resident fish in PPL diversion above the two waterfalls?***
   There are no concerns from a water quality standpoint that I am aware of. Would the PP&L penstock need to be screened to prevent fish from being drawn through the powerhouse?
8. ***I have drawing numbers 1, 2, 3, and 28. Am I missing any that would be of help to us for this effort? Also, quality of drawing 28 is not the best.***
   I would like to talk with you about what we have available to make sure that you have everything relevant.

Additional questions:

We are tentatively looking at a fish barrier at Dam B, and a new screen facility at your intake building, to address fishery concerns.

Do we need an additional barrier at Dam B, besides the Dam itself?

Pipe crossing at Iron Gate may either be a new pipe bridge crossing the river (similar to what Grants Pass has over the Rogue River) or perhaps an HDPE pipeline installed in trench excavated underwater before reservoir is drawn down. Still need coordinates for this pipeline crossing (see my previous email).

How accurate do the coordinates need to be? I can take a GPS out in the field if that will work for you. A couple of years back, we had PACE Engineering out of Redding, give us a recommendation on the pipe crossing in case the dams were removed. Your team may be looking at this a little closer and come up with a better solution, but at the time, PACE recommended that we not go over the river because of the height requirements that need to be considered to withstand flood conditions.

Please let me know if I can help answer any more questions.
Rob

From: Hepler, Thomas E [mailto:THepler@usbr.gov]
Sent: Tuesday, October 19, 2010 8:51 AM
To: Rob Taylor
Cc: Hamilton, John; LaBoon, John H; Sayer, Kenneth A; Christensen, Rick J; Mefford, Brent W; Romero, Jesus G; KSD.AdminRecord@cdm.com
Subject: RE: Fall Creek Intake Dwgs - SECOND REQUEST

Rob – I have not seen a response from you yet. We are trying to pull together some designs for your facilities prior to a value engineering meeting scheduled for the week of December 6. That does not leave us with a lot of time – can you give us what you can sometime this week? We have been assuming a 10 to 15 cfs diversion for fish screen and pipe flow.

Thanks.

Tom Hepler
10/19/2010

Rob – I have a few more questions for you, if you don't mind, resulting from a design team meeting held here yesterday.

1. Average diversion discharge through city water supply pipes, or normal operating range (including pipe from Dam B, as well as main line crossing Iron Gate).
2. Normal operations of spillway and sluice gate at Dam A, which control water surface at intake building.
3. Normal releases from Fall Creek Powerhouse, or normal operating range.
4. Information on city pump house – pump capacity, flowrates, head, etc.
5. Any as-built drawings showing current alignment of pipe from Dam B into intake house (shown in sketch)
6. Comments on potential to run powerline into intake house.
7. Know of any potential concerns for entraining resident fish in PPL diversion above the two waterfalls?
8. I have drawing numbers 1, 2, 3, and 28. Am I missing any that would be of help to us for this effort? Also, quality of drawing 28 is not the best.

We are tentatively looking at a fish barrier at Dam B, and a new screen facility at your intake building, to address fishery concerns.

Pipe crossing at Iron Gate may either be a new pipe bridge crossing the river (similar to what Grants Pass has over the Rogue River) or perhaps an HDPE pipeline installed in trench excavated underwater before reservoir is drawn down. Still need coordinates for this pipeline crossing (see my previous email).

Any comments for me?

Hope all is well. Thanks.

Tom Hepler
10/05/2010

From: Rob Taylor [mailto:rtaylor@ci.yreka.ca.us]
Sent: Tuesday, August 24, 2010 2:35 PM
To: Hepler, Thomas E
Subject: RE: Fall Creek Intake Dwgs

Tom,
I will get some drawings in the mail.
To answer your question. Since Fall Creek is our only source (we have a backup well but it does not meet the City's demands and can only be used under a boil water notice) and we only have one supply main, we are limited by our storage tank capacity for the length of time we can be shutdown. With the new 2.5 million gallon tank that will be online within 2 years, we could be shut down 12 to 18 hours in the summer and up to 72 hours in the winter.
Rob

From: Hepler, Thomas E [mailto:THepler@usbr.gov]
Sent: Tuesday, August 24, 2010 1:23 PM
To: Rob Taylor
Subject: RE: Fall Creek Intake Dwgs

Thanks for this information.

Please send copies of whatever drawings you have to following address:

Tom Hepler
Bureau of Reclamation
6th and Kipling, DFC Building 67, Code 86-68130
PO Box 25007
Denver, CO 80225

Drop the PO Box if you are sending other than by USPS.

Another question – are there any ways to bypass or suspend flows through your 24-inch pipe across Iron Gate Reservoir, even for a short period of time? Perhaps existing water storage capacity would meet public demand for xx hours? You may have to allow for minimum fire demand also – not sure. I am thinking we will need to construct a new pipeline across the Klamath River and would need some time for the connections.

Tom Hepler

From: Rob Taylor [mailto:rtaylor@ci.yreka.ca.us]
Sent: Tuesday, August 24, 2010 1:57 PM
To: Hepler, Thomas E
Subject: Fall Creek Intake Dwgs

Hi Tom,
Attached are the drawing that we discussed.
Please let me know if you would like the 24x36 as-build drawings. They are a little dated but not much has changed around the intake.
Rob

City of Yreka - Water Division
Rob Taylor, Water Manager
856 North Main Street, Yreka, CA 96097
Ph: (530) 841-2327 Fax: (530) 842-3721

AA.3 Indian Tribes

IT_MC_1025_040
Duplicate of IT_EM_1117_083

KLAMATH DAM REMOVAL
DRAFT EIS/EIR HEARING
OCTOBER 25, 2011

PUBLIC TESTIMONY
ORLEANS, CALIFORNIA

MS. BRUCE-HOSTLER: My name is Deborah Bruce-Hostler, D-e-b-o-r-a-h B-r-u-c-e hyphen H-o-s-t-l-e-r. I'm a resident of Orleans.

And some of the things I'm going to say, I guess my standing is based on that I'm married to a Hupa tribal member. And part of what we do in that family, his family, is feed salmon, acorns, and sometimes even sturgeon to dancers, ceremonialist families at the Hupa Jump Dance Ceremony.

As indicated in the Executive Summary of the Draft EIS/EIR on Klamath Facilities Removal, in the Draft, in Table ES-7, the Summary of Controversies and Issues Raised by Agencies and the Public, a subject is missing that has been raised, regarding KBRA/KHSA impacts related to environmental justice, water rights, trust responsibility, and the like.

The language in the KBRA/KHSA and any legislative rewrites needs to be clarified and made absolutely specific that, quote, "Klamath," unquote, tribes -- and this you can see on Page ES-19 of the Draft, or of the summary, rather -- refers only to the tribes that were signatories to the Agreements and can never in the future be interpreted to refer to non-signing tribes in the Klamath-Trinity Watershed, so that waivers of water rights or termination of federal trust responsibility on a one-per-tribe basis cannot be applied to non-signing tribes.

The EIS/EIR and legislative language affecting the KBRA/KHSA need to acknowledge potential negative impacts to the environment, to social justice and environmental justice, created by waiving or termination of water rights or trust responsibility and not set legal precedent for the federal government to impose on other tribes anywhere in the U.S. such a waiver or end to trust responsibility.

And I want to back up just a few of the things that Mr. Pat Higgins provided. KBRA implementation disallows participation by federally recognized tribes who did not sign on to the Agreements on decision making related to fisheries or water quality for 50 years, which

constitutes major social injustice.

Also, on the subject of water quality impacts on Klamath and Trinity River fisheries, dam removal, without reducing nutrients in the Upper Klamath Basin, will increase nitrogen seasonally in the Lower Klamath, also affecting the Trinity River. And the DEIS/DEIR does not discuss applying ecological restoration techniques and principles that are the only scientifically valid means of evading the water pollution crisis and restoring native fishes.

MS. JONES: Thank you.
MR. LYNCH: Thank you, Deborah.

Taylor David

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Terry 10/19/11
(2)

Ho Winna
A Time of Change

Comments by: Klamath Tribal Member, Taylor R. David
Chiloquin, Oregon
(541) 783-2219 ext. 147
taylor.david@klamathtribes.com

*Waq'li'si dic psin slaya ee dic gida mbosaksawaas

*Hello and good evening/ it is good to see you here in mbosaksawaas (Chiloquin)---last night we was in ?iWLaLLoon?a Klamath Falls.

Since I spoke last night I will not take more of your time. As a member of this community I support the KBRA and KHSA and full or partial dam removal.

I think the Ancestors said it best, "Naanok ?ans naat sat' waYa naat ciiwapk diceew'a—which simply means, "We help each other; We will live good."

Sepk'ee'c'a iyamni dic psin - (Thank you and have a good evening!)

Taylor David

Terry - E 10/18

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Ho Winna
A Time of Change

Comments by: Klamath Tribal Member, Taylor R. David
Chiloquin, Oregon
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taylor.david@klamathtribes.com

*Waq'li'si dic psin/ slaya ee dic gida ?iWLaLLoon?a , ch'ay us gayla dot ewsiknee-moowat dalk nee- numu mukluks. Gayo sassis Lamina Wac ant Taylor (Tupper) David.

*Greetings and good evening/ it is good to see you here in ?iWLaLLoon?a Klamath Falls, homeland of the Klamath, Modoc and Yahooskin Paiute people. My name is Lamina Wac-Thunder Horse; my Christian name is Taylor (Tupper) David.

I am an enrolled member of the Klamath Tribes, born and raised here in the Sprague River Valley and Klamath County. My family was avid Ranchers and Rodeo people- horsemen. I left to attend college and returned to work for my tribe as the Public Relations/News Department manager. I have been in this position for the past 18 years.

These are some main things you should once again consider when you are making your final determination.

You must always take into consideration the TRUST RESPONSIBILITY to the Klamath Tribes, with regards to our Treaty Rights of 1864. And in the words of two great men and leaders, (Mr. Walter Echo Hawk and Supreme Court Justice Hugo Black)...who said, "The Tribal way of life and Treaty of 1864 is protected by the Supreme Law of the Land, which is simple but true... and Great Nations, like Great Men, should keep their Word!"

Take into consideration the unbelievable hours of time and hard work that has already been done by the entities that support the KBRA and KHSA. Realize that act alone is already a Miracle in itself. These agreements should move forward, along with the full or partial removal of the 4 dams on the Klamath River.

And I hope over this last year you've done your research, since last I spoke at one of these meetings, in regards the economic success of the basin, because before when the Tribes and the natural resources were healthy, the basin was healthy.

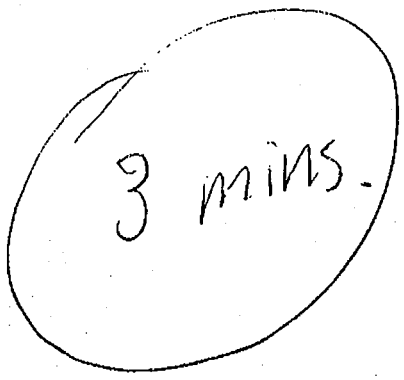
Finally, I would ask you take a look at this from a Spiritual Standpoint... as our people and God knows ALL THINGS COME FULL CIRCLE. And we believe this is true

for the Salmon and Steelhead. We hope you Recognize that this is an "Opportunity of a Lifetime"- to set precedence for our Nation... maybe even the World?

Our generation has been chosen to make changes that will benefit our Eco-system so we can ensure the success of generations to come. So everyone has a better future, not just the tribal people, but everyone.

I think the Ancestors said it best, "Naanok ?ans naat sat' waYa naat ciiwapk diceew'a—which simply means, "We help each other; We will live good."

Sepk'ee'c'a iyamni dic psin - (Thank you and have a good evening!)



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SHASTA INDIAN NATION

October 23, 2011

Elizabeth Vasquez
Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825

Gordon Leppig
California Department of Fish and Game
619 Second Street
Eureka, CA 95501

Ms. Vasquez and Mr. Leppig:

Subject: Klamath Facilities Removal Environmental Impact Statement
California State Clearinghouse: 2010062060

The Shasta Indian Nation is an Indian Tribe located in Siskiyou County, California. The following comments are in response to the Environmental Impact Statement that evaluates potential impacts that would occur if four dams and related facilities on the Klamath River were removed.

§3.12.3.2 of the Environmental Impact Statement (EIS) / Environmental Impact Report (EIR) describes the Quartz Valley Indian Reservation (QVIR) and states the QVIR represents people of Shasta Indian ancestry. This statement is incorrect. The Shasta Indian Nation has an elected governing body that is comprised of Shasta Tribal members, none of whom live within the boundaries of the QVIR. Each Tribe is distinctly different and members are not dually enrolled.

The Shasta have lived along the Shasta, Scott, Salmon, and Klamath Rivers since time immemorial. In order for Copco 1 to be built, Kitty Ward, a full-blooded Shasta Indian was tricked into leaving her home so her land could be taken.

> **50 Years on the Klamath. Author: John C. Boyle**
> "Kitty Ward, a full-blood Indian, lived in a tall log cabin which she and her white husband Tim built for a home. It was beautifully located on the lower end of the proposed reservoir beside flowing springs ample to irrigate some of the lands.
> The cabin was below the flow line so when time to fill the reservoir came, Kitty was told it was necessary for her to move. She certainly knew how to put the white man in his place. Between

> sobs and tears, she refused again and again to leave her home saying "I no move, let water come, I die here." Tim had been dead for several years, but Andy Marlow, as a ranch foreman and keeper of her wampum cooperated in getting Kitty to visit in Hornbrook, a visit from which she never returned."

Kitty Ward is one example of a Shasta Indian losing their land for the purpose of developing hydroelectric power on the Klamath River. History provides numerous accounts of Shasta families that were relocated to distant reservations and isolated from their culture to facilitate building the dam facilities. Many current members of the Shasta Indian Nation have family members that were part of the relocation and taking of land. My family lived in a Kammatwa village on the Klamath River west of present day Beswick, California prior to the development of Copco. Construction of the Klamath River dams caused the destruction of entire Shasta villages. Thus, the sites at Copco 1 & 2 and Iron Gate have special significance to the Shasta Indian Nation. It is worth noting that the Shasta were not included in the development of the Klamath Basin Restoration Agreement (KBRA) and have not participated in discussions since the termination of the 2005 Federal Energy Regulatory Commission (FERC) relicensing process.

The National Historic Preservation Act (NHPA) Section 106 provides "an adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association (36 CFR Section800.5(a)(1))."

Pursuant to the California Environmental Quality Act (CEQA), a substantial adverse change in the significance of an archaeological resource or an historical resource is defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource is materially impaired, as defined in PRC Section 21083.2 and CCR 15064.5.

> §3.13.3.3 - Daniels (2003) identified 47 ethnographic sites (e.g., habitation, hunting, fishing, gathering, and spiritual/ceremonial sites) along the Klamath River and at least 5 village sites submerged by the formation of Copco 1 Reservoir that have cultural value to the Shasta. Theodoratus et al. (1990) also identified 24 sites along the Klamath River between J.C. Boyle Dam and Scott River that have "cultural value" to Shasta. Additionally, the Bureau of Land Management (BLM) has previously identified **a culturally significant area along the Upper Klamath River for a proposed National Register District.**
>
> *"Reservoir drawdown associated with the Proposed Action could affect/impact archaeological and historic sites, TCPs, and cultural landscapes that are eligible for inclusion on the National Register and/or California Register and possibly Indian human remains."*

The draft EIS/EIR recognizes the existence of ethnographic records that identify Shasta village sites, including burials, located along the previous riverbanks prior to dam construction; and Shasta sites that are submerged in the reservoirs that likely include human remains.

Additionally, numerous **Shasta** sites along and near the Klamath River downstream from the dams may be exposed or damaged from temporary increase in flows during reservoir drawdowns.

Dam removal and reservoir drawdown would result in a reduction of water levels in the existing reservoirs; temporarily increase flows along the Klamath River; and expand the limits of the 100 year floodplain. The EIS/EIR discloses that increased flows along the Klamath River could "undercut, erode, or flood sites along or near the banks of the river, affecting elements of the potentially significant cultural landscape". **"However, sites associated with it could be adversely affected through erosion, exposure, and vandalism."** It would be an egregious injustice to the Shasta people and cause irreversible harm to the Shasta Indian Nation if dam removal occurred and the Tribe was denied the ability to preserve and protect sensitive sites.

The Shasta Indian Nation previously provided a confidential list with locations of village sites located along the Klamath River from the Oregon border to present day Seiad Creek. Our historical existence along the Klamath, Shasta, Scott and Salmon Rivers is well documented along with the many Shasta villages around Jenny, Shovel, Fall, Yreka, and Butte Creeks. To suggest this area holds the same cultural significance to other Tribes, tribal group, or government entity is inaccurate and offensive. Our ceremonies occurred at ceremonial sites and in villages like the Ah-wi'-mah on the Klamath River at the mouth of the Shasta River and Ko-watch'-ah-hah' on the Klamath River at the mouth of the Scott River. There is no other Tribe or group that has legitimate claim to these areas from a cultural or historical perspective.

The influx of trappers from Hudson Bay began the demise of the Shasta culture. It seems the agreements (KHSA and KBRA) that were developed to purportedly restore fish habitat and populations are a step further in that direction.

Alternative 1 – No Action/No Project Alternative
Multiple Shasta Village sites, including burial, remain submerged at Copco 1 & 2, Iron Gate and JC Boyle. The No Action /No Project Alternative would not have an immediate impact to the historic value of the submerged sites. If the water level drops and the village sites are exposed, and burials, there is no mechanism in place for the Shasta to protect or preserve the historic properties and there would likely be incidents of looting and vandalism. In fact, the KBRA requires PacifiCorp to transfer the land containing Shasta sites to the States of Oregon and California respectively. If the sites remain submerged this would not occur. Additionally, Alternative 1 would prevent the implementation of the KBRA and cause the FERC relicensing process to resume. FERC relicensing means the dams stay in place and historic properties are not exposed causing no further impact.
Alternative 1 – No Action / No Project is the preferred option.

Alternative 2 – Full Facilities Removal of Four Dams (Proposed Action)
The implementation of the KBRA along with removal of the four dams would call for elimination of the hatcheries on the Klamath River which would affect our tribal fishery and impede the ability of Shasta people to practice our native culture. Lower water levels in the reservoirs, increased water flow in the Klamath River would result in exposed village and burial sites of the Shasta. The KBRA does not provide the ability for the Tribe to protect, preserve, or restore the sites. It is well documented in Siskiyou

County that Shasta sites located on government and private land have been desecrated and artifacts stolen. The removal of four dams and implementation of the KBRA would cause irreversible harm to the Shasta Indian Nation's cultural and historical resources.
For Alternative 2 to be feasible the land containing village and burial sites that are currently submerged would need to be transferred to the Shasta Indian Nation and cultural resource management agreements with the Tribe would need to be in place.
Alternative 2 would negatively impact Shasta cultural and historic resources and therefore is not recommended.

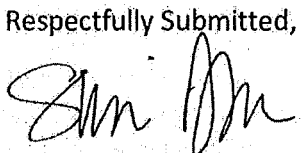
Alternative 3 – Partial Facilities Removal of Four Dams
The partial removal of four dams creates the same concerns and issues as full removal in relation to the Shasta Indian Nations village and burial sites. As stated above, lower water levels in the reservoirs and increased water flow in the Klamath River will result in exposed village and burial sites. Again, this would cause the implementation of the KBRA which does not provide any mechanism for the Shasta Indian Nation to protect cultural and historic resources.
Alternative 3 would negatively impact Shasta cultural and historic resources and therefore is not recommended.

Alternative 4 – Fish Passage at Four Dams
The construction of fish passage facilities at each of the four dams would cause the FERC relicensing process to resume and the hydropower generating facilities to remain in place. This would cause no impact to the submerged sites and is therefore considered a desirable option from a historic preservation perspective. The Shasta Indian Nation prefers the sites to remain submerged indefinitely rather than have them exposed, robbed, and exploited.
Alternative 4 is the preferred Action after the No Action Alternative because it will not impact pre-historic sites or burial sites to become exposed.

Alternative 5 – Fish Passage at J.C. Boyle and Copco 2, Remove Copco 1 and Iron Gate
This Alternative requires the removal of two dams that will result in lower water levels and will have the negative impact described in Alternative 2 & 3 analysis.
Alternative 5 is not recommended because of the negative impact to cultural and historic resources.

The Shasta Indian Nation is opposed to any action that causes the implementation of the KBRA. We disagree with the provision that allows the establishment of an interim fishing right between Iron Gate and Interstate 5; and we do not support neighboring Tribes developing or operating fish hatcheries on the Klamath tributaries. The Shasta and Scott Rivers are traditional Shasta areas and have village, ceremonial, and burial sites that would most likely experience negative impact if the KBRA is implemented as it currently exists.

Respectfully Submitted,



Sami Jo Difuntorum
Culture and Historic Preservation

November 17, 2011

My name is Keshan Dowd. . I am a tribal member to Resighini Rancheria and a residence to Del Norte County in California and a of United States citizen. I am 35 years old.

My concern is with the negative impacts these agreements have on our tribal water and fishing rights claims. I believe that our exclusion is a violation of the federal trust responsibility and this process violates environmental justice laws and policies. Each federally recognized tribe in the Klamath Basin should be recognized sovereign authority to choose to accept these deals called agreement without forced provisions like the one in Section 15.3.9 of the KBRA. If the federal government accepts these agreements as they stand, Klamath River Senior water rights will be compromised and our future generation ancestral fishing practices will be in jeopardy. As a tribe, we do not have the funds to fight anyone that violates our sovereignty.

I do not oppose dam removal, I support giving the authority back to the Federal Energy Regulatory Commission where it belongs; back to a process that the people in power adopted to allow equally participation from beginning to the end. Follow the law! It will make the dams come out sooner.

I support the **NO ACTION ALTERNTIVE!**

Ms. Keshan Dowd
P.O. Box 313
Klamath, Ca 95548

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PUBLIC HEARING ON THE KLAMATH DAM
REMOVAL DRAFT EIS/EIR
---o0o---
YREKA, CALIFORNIA
THURSDAY, OCTOBER 20, 2011

MS. PAT FLETCHER: P-a-t F-l-e-t-c-h-e-r.

I am a council member of the Shasta Nation. I want to thank you for the opportunity to voice our comments regarding the Klamath Dam removal.

We would like to start out our commence by stating that we endorse Alternative 4 and ask that a sensor fish study be conducted.

We also ask for hatcheries to be placed on the Salmon and the Scott Rivers to allow our people to once again be able to fish in our native lands.

In 1934, Quartz Valley Reservation was established for the Shasta and Upper Klamath River Shasta.

In section 3.12.3.2, Quartz Valley Tribe, Quartz Valley Tribe history, they say, and I quote: Most of the Quarts Valley Indian Reservation tribal members are descendants of the People of Karuk ancestry, although a few tribal members are also of Shasta ancestry.

Therefore, the cultural traditions are similar to the -- those described in the Karuk section of this report.

The Quartz Valley Indian Reservation is a

federally-recognized tribe, representing people of Upper Klamath, Karuk, and Shasta ancestry, end quote.

First, we would like to thank our QUR for finally acknowledging the vast majority of their membership is, in fact, of Karuk -- Karuk descent.

The issue that we have with them is that they have falsely stated that the people of the Upper Klamath are Karuk when, in fact, they are wholly Shasta. Karuk have never been identified as Upper Klamath; that is a designation that belongs to the Shasta people living on the Klamath River.

Our western boundary lies at Clear Creek on the Klamath River. This is according to George Gibbs, who traveled with the treaty commissioner, McKee (phonetic), in 1851, and documented the journey in great detail in the History of Siskiyou County, by Harry L. Wells, 1881, page 144, McKee's Indian Treaties.

McKee next got all the Shastas together and assigned them for a reservation in the lower end of the Scott Valley. This clearly shows that Treaty R was exclusively with the Shasta people.

We, the Shasta Indian Nation, would like to publicly state that the QUR does not now, nor ever has, represented the Shasta people.

In the late 1950s and '60s, the Indian Claims Commission, Docket Number 333, the Shasta Tribe, led by Stanley Miller, uncle to our former chairman Larry Doke and also great uncle to our secretary, Roy Shelton, sued the United States government and was recognized as having a right to participate in a lawsuit.

The Shasta aboriginal territory was documented, mapped, acknowledged, and paid for during the suit. The lawsuit --

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Ray Hall
Terry (H)
10/20

The Truth About Dam Removal

The Klamath Basin Restoration Agreement, Confidential and Privileged Settlement Communication with the exclusion of the General Public's participation causes injury to the general public and the Shasta Nation.
This Agreement will force the Shasta's out of existence by the Karok Tribe down river and the Klamath Tribe up river establishing fishing rights below Iron Gate Dam. The Federal Government and several states are willing to destroy the Shasta Nation by creating artificial low fish numbers for absolute control of surface and ground water and our lives through the KBRA. Charter

The Klamath Tribe never had an identified village site on the Klamath River.

The Shasta's possess prehistoric village sites, as identified in Gibbs Journal, while traveling up river in 1851. Mr. Gibbs documented the Shasta language encountered upon leaving Clear Creek on the Klamath River. The formost up river Shasta village site on the Klamath is near Lake Ewana, headwaters of the Klamath River.

The Shasta's aboriginal recognized land base on the Klamath river is identified at least 70 miles more or less below Iron Gate Dam, near Clear Creek. Upstream the Shasta's aboriginal land base on the Klamath River from Iron Gate Dam includes more or less 50 miles of the Klamath River, to the lake now known as Lake Ewana. The removal of four dams in the heart of the Shasta Nation Requires that the Shasta Nation and the General Public be allowed due process to file exceptions to the Agreement. Which has been denied.

Each Party to the KBRA has an "Obligation" to Support this "Confidential Agreement," no exceptions. Parties were selected that "Shall support and defend this Agreement in each applicable venue or forum, including any administrative or judicial action in which it participates, and which concerns the validity of any Regulatory Approval or Authorizing Legislation."
To remain "Confidential" the Agreement utilized a Conspiracy of Silence; a secret Agreement to keep silent about an occurrence, situation or subject in order to promote or protect interests among selective groups that promoted the same selfish interests. Conspire; to join in a secret Agreement to do an unlawful or wrongful act or to use such means to accomplish a lawful end. Webster's dictionary.

The Karok Tribe is now attempting to use the stolen Shasta Treaty R as their own to control Shasta Nation Aboriginal lands and water rights, which is where the dam removal currently lies.

Tribes and Government agencies have erroneously disregarded the reserved Shasta Nation Treaty rights including hunting, fishing, and water rights which are Guaranteed by the Constitution of the United States. A Tribe need not be Federally Recognized to establish that it is the beneficiary of a Treaty. United States v Suquamish Tribe 901 F.2d 772 (9th Cir. 1990); It is enough that a group or tribe establish that it has preserved an organized tribal structure that it can trace back to a Federal Treaty. United States v Oregon, 29 F 3d 481, amended 43 F. 3d 1284 (9th Cir. 1994).

Terms of Agreement:
The term of the Agreement as to contractual obligations shall be 50 years from the effective date.
The KBRA will need a Charter, foreign to our Constitution and unacknowledged by our laws and altering fundamentally the forms of our government. A Charter as defined to make this Agreement effective will abdicate Government and declare us out of the protection of the United States Constitution.
As defined by Webster 2. A grant or guarantee of rights, franchises or privileges from the sovereign power of a state or country. 4. A special privilege, "IMMUNITY," or exemption arising from

legislation. The citizens of Klamath, Jackson and Siskiyou Counties will have their right to representation destroyed in an Unconstitutional Dictatorial Charter for 50 years.

Force Majeure shall mean: For the purpose of performing Contractual Obligations under this Agreement. There is no freedom of speech or right to representation by the Public in the creation of this Agreement, and Irrevocable Charter will mandate this. To become a Party to this "Obligated Contractual Agreement" means Government agencies have violated their trusts as public servants by violating the authority of the Constitution of the United States and the will of the People.

Indian Treaties stand essentially on the same footing as Treaties with Foreign Nations, as they are made pursuant to the Constitution, Treaties take precedence over any conflicting state laws by reason of the Supremacy Clause. U.S. Constitution., Art. VI, $ 2; Worcester v Georgia, 31 U.S. (6 Pet.) 515 (1832).

Reserved treaty rights are not Dependant on Trust Status. The Supreme Courts case of Johnson v McIntosh, 21 U.S. (8 Wheat.) Indian tribes were incapable of conveying their land directly to individuals even before the passage of the Trade and Intercourse Act

The first Trade and Intercourse Act 1 stat. 137 (1790), forbade the transfer of Indian lands to individuals or States except by Treaty, "Under the authority of the United States." Shasta land transferred to the State of California by Federal Government officials, with the un-ratified Treaty R sealed for fifty years, violates the First Trade and Intercourse Act 1 stat. 137 (1790) of the Constitution of the United States. Indian tribes that occupied and used the land to the exclusion of others had an interest denoted as a right of occupancy, known today as Aboriginal Title. That title cannot be compromised by anyone except by Congress. Only the United States, could extinguish the Indian right of occupancy by purchase, "a treaty."

The creation and acceptance of an Indian Reservation by Treaty with boundaries constitutes a relinquishment and extinguishment of Aboriginal Title outside of the Reservation. Menominee Indian Tribe v Thompson, 161 F3d 449 462 (7 Cir.1998). Treaty R of the Shasta and Upper Klamath has remained un-ratified by the US. Senate therefore legal interest is retained by the Shasta Nation.

A Tribes Treaty Right to exclusive use and occupancy of it's FORMER Reservation has been held to protect it from attempts of the BIA to place land within that Reservation in trust for a competing tribe. Citizen band of Pottawatomie Indian Tribe v Collier, 142 F. 3d 1325 (10th Cir.1998).

The Karok Tribe and the B.I.A. has stolen title of Treaty R of the Shasta and Upper Klamath Indian tribe speaking the same language, now the Shasta Nation. The Karok Tribe are not of the land described in Treaty R nor are they descendants of the treaty signers of Treaty R.

The Shasta and Upper Klamath Indians are listed in the Federal Register, also, the Shasta are listed on the California Tribal Consultation List maintained by the Native American Heritage Commission (NAHC).

Roy V. Hall Jr.

Roy V. Hall Jr.

Chairman

Shasta Nation

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From: KSDcomments KSDcomments[SMTP:KSDCOMMENTS@DFG.CA.GOV]
Sent: Monday, December 12, 2011 9:36:18 AM
To: BOR-SHA-KFO-Klamathsd
Subject: Fwd: Dam Removals
Auto forwarded by a Rule

>>> Tane' Beard <tanesaddress@gmail.com> 11/20/2011 11:12 AM >>>
November 20, 2011

Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825
via email: KlamathSD@usbr.gov

To all this concerns,

My husband and I are residents of Shasta County and business owners in both Siskiyou and Shasta counties. He was raised on the Hupa Indian Reservation and has family still residing there. The destruction of the dams has personal and economic consequences that affect all of us and all of our voices should be heard.

We are opposed to the removal of the dams for a myriad of reasons. We need the power generated by the hydroelectric dams. If we do not have access to the cheaper electricity we will have to rely on extremely expensive propane where we live and that would put us right out of business. The economy in the North State has already been struggling with more severe challenges than in most counties of California. We have had a consistently higher unemployment rate resulting in massive business losses and home foreclosures. Those of us trying to hang on through this severe downturn cannot bear further increases in our power costs.

In The North State, the runoff from the Cascades and the Trinity mountains pose a constant risk of flooding and the dams help to control it. Just look at last years rainfall and what that would have meant to the populations in the path of the floods without our dams. We stand to lose not only the Indian burial grounds, but all of our lands will be at risk.

We need access to good quality water year around not only for all cities in California but for farming and ranching which is how rural areas make their living. Do you not remember the drought years? Do you not know that we WILL have drought again, just as sure as weather has been cycling for as long as the earth has turned? You would have to have been living in a cave to have not heard about global warming. We need MORE dams to ease the effects of disastrous droughts that we have had in the past. Just take a look the severity of the 2011 Texas drought. Do you think it may have eased the losses if they had more dams? What will happen to the Salmon then if there is no water? You know what will happen to ranchers and farmers, livestock and crops. If we cannot afford to raise your food then what? You going to look to China to raise your food too?

Who will really benefit by the destruction of the dams? The propane and natural gas industrialists? The few who own water rights ? Are they the ones behind this?

Your plans would be catastrophic to our communities, but more importantly they will have long reaching effects on the entire state economy, making a recovery even more elusive. The dismantling will bring jobs you say? They are TEMPORARY. It will cost how many more jobs and businesses in the long term? THINK. Why would Federal agencies step into our business and destroy such a critical element of our daily lives? What are they thinking?

Create jobs by managing better. Build ladders and more fish hatcheries, leave our dams alone! Help us to stop this now!

Charles and Tane Horner

Palo Cedro, CA

Janice Kelly Representing

Hello, my name is ~~Rick Dowd~~, ~~I'm Chairman to~~ Resighini Rancheria.

The Resighini Rancheria was excluded from participating in the development of the KHSA and the KBRA. We are concerned with the negative impacts these agreement have on tribal water and fishing rights claims. We believe our exclusion is a violation of the federal trust responsibility, and that it violates environmental justice laws and policies. One of our main concerns is that each federally recognized tribe in the Klamath Basin should have sovereign authority to choose to accept these deals called agreements without forced provisions like the one in section 15.3.9 of the KBRA. Our water and fishing rights are very important to us. If the KRBA is passed our Klamath River Senior water rights will be compromised.

We understand what is going on. We understand for the sake of money and profit, there are those who will kill our river. We understand that we have been sold out to you for the sake of money. We understand the lure of money. We understand the lure of power. Think of what you propose to do for the sake of cheap electric power, potatoes, hay and other produce that can be grown almost anywhere.

We are not opposing dam removal, we support giving the authority back to the Federal Energy Regulatory Commission where it belongs; back to a process where we are equally allowed to participate from the beginning to the end. Follow the law.

After months of study and review we support the No Action Alternative.

Resighini Rancheria Press Release
January 20, 2011

RESIGHINI RANCHERIA TRIBAL COUNCIL

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FOR IMMEDIATE RELEASE

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Resighini Rancheria Tribal Council Votes to Oppose Klamath River Agreements

Klamath, California, January 18, 2011. The Resighini Rancheria Tribal Council voted to support dam removal on the upper Klamath River, but to oppose the Klamath Hydroelectric Settlement Agreement (KHSA) and the Klamath Basin Restoration Agreement (KBRA). At a regularly scheduled Council meeting on January 13, 2011, the Council voted unanimously to oppose the KHSA and the KBRA, joining the Hoopa Tribe and numerous other Klamath Basin stakeholders in Oregon and California.

Though the Council was excluded from participating in the development of the agreements, after months of study and review of the KHSA and the KBRA, along with numerous scientific reports and studies by private organizations and tribal, state and federal government agencies, including reports by the Tribe's fisheries biologist and hydrologist retained to assist them in evaluating the agreements, the Council concluded the agreements are not in the public interest, and if implemented that they will not restore salmon and other fish species to near historical levels. The Council's studies revealed the following:

- The Council favors swift Klamath Hydroelectric Project (KHP) dam removal to restore the natural balance of the Klamath River, but the KBRA should be considered separately from dam removal.

- Dam removal should have remained focused on the existing framework of authority. The Resighini Rancheria was not allowed to participate in the settlement group process, and the participating Tribes did not have any authority to act in our behalf or to bind us to these agreements.

- The KBRA has a chilling effect on enforcement of existing laws and processes, such as the Endangered Species Act (ESA) and the Clean Water Act.

- The guarantee of water for irrigators is not documented in a defensible fashions and leaves too little water for the fisheries; Chinook, Spring Chinook, Coho Salmon, Steelhead, Pacific Lamprey, Green Sturgeon and heartier Upper Klamath Basin species of fish. *There are no guaranteed water flows for fish.* The Council is concerned that

flows under the KBRA will drop below historic norms and increase the risk that catastrophic fish kills as seen in 2002 will recur.

- The Council believes that subsidizing power costs for Upper Klamath Basin irrigators ($50 million), and the Klamath Water and Power Agency ($92.5 million) is fiscally unsound and will lead to unsustainable groundwater use and is incompatible with restoring the Klamath River aquatic ecosystem.

- The KBRA has no restoration goals. It establishes no target salmon run sizes or harvest goals.

- The KBRA requires support of water diversions for agriculture that weaken the effect of the ESA.

- The KBRA requires Indian Tribes to waive claims of violation of trust water and fishing rights that likely will occur.

- The Lost River and short-nose sucker were once an extremely important food resource for Indian People of the Upper Klamath Basin and the KBRA essentially blocks their recovery in the Lost River and Lower Klamath Lake for the next 50 years.

- The KBRA promises increased flows into Upper Klamath Lake and higher lake levels to benefit at-risk sucker species, but the water supply projects on which it will rely are undefined.

- The KBRA relies on groundwater pumping for agricultural water supply during times of shortage, and the Council believes the aquifers are incapable of meeting demand without having adverse impacts on aquatic resources, including sucker fish and reintroduced salmon and steelhead.

- The KBRA does not have any clearly stated water quality plan despite a well recognized water pollution crisis that is known to contribute to very high annual mortality of juvenile salmon and hardier species.

- The KBRA does not address the refilling of Tule Lake and Lower Klamath Lake and expanding riparian wetlands in the Lost River and Keno Reservoir reach of the Klamath River which the Council believes are essential for improving water quality and increasing water supply.

- The Council has serious concerns about the amount of pesticides used in the Klamath Basin, including within the National Wildlife Refuges, and yet there is nothing in the KBRA regarding this potential threat.

- The Council takes issue with the lack of attention given to water pollution clean up under the KBRA because pollution currently prevents daily and ceremonial use of the river in some seasons. This is a major social and environmental injustice in need of a speedy remedy.

Resighini Rancheria Press Release
January 20, 2011

The Council adopts the following positions/objections taken by the Hoopa Valley Tribe:

- Neither the KBRA nor the KHSA require removal of any dam. The KHSA is a planning process that merely might, after 12+ years, lead to dam removal.

- The KHSA gives to the Interior Secretary the determination whether dam removal is "in the public interest," thus delaying action while unnecessarily duplicative NEPA and state CEQA analysis occurs.

- The KHSA prohibits the Secretary from choosing dam removal until, among other things, Oregon and California and Congress pass legislation to fund it.

- The KHSA gives Oregon and California the right to veto dam removal if they do not concur in both the Secretarial Determination and the choice of a Dam Removal Entity.

- The KHSA minimizes PacifiCorp's required operational changes until at least 2021, strips FERC of jurisdiction while the agreement remains in place, and also protects the utility from compliance with any other measures to improve water quality.

- The KHSA halts State water quality certification proceedings, which now are the only remaining step before FERC would force dam removal.

- The KHSA sets a mere "target" of 2020 to begin dam removal, but also demands $27 million in extra payments to PacifiCorp if removal begins before 2021.

- The KHSA lists eight events that will terminate the dam removal planning process and restart FERC relicensing/dam removal proceedings, such as legislation or any regulatory approval conditions that are "materially inconsistent" with the KHSA.

The Resighini Rancheria is a federally recognized Indian Tribe located near the mouth of the Klamath River. The Rancheria became federally recognized in 1975, before the organization and recognition of the Yurok Tribe. Rancheria members have been very active throughout the years in securing Indian fishing rights in the Klamath River.

2009 Fall Annual Conference
Tacoma, Washington

RESOLUTION #09 - 63

"SUPPORT FOR SOVEREIGN AUTHORITY OF TRIBES TO ENTER WATER AGREEMENTS"

PREAMBLE

We, the members of the Affiliated Tribes of Northwest Indians of the United States, invoking the divine blessing of the Creator upon our efforts and purposes, in order to preserve for ourselves and our descendants rights secured under Indian Treaties and benefits to which we are entitled under the laws and constitution of the United States and several states, to enlighten the public toward a better understanding of the Indian people, to preserve Indian cultural values, and otherwise promote the welfare of the Indian people, do hereby establish and submit the following resolution:

WHEREAS, the Affiliated Tribes of Northwest Indians (ATNI) are representatives of and advocates for national, regional, and specific tribal concerns; and

WHEREAS, the Affiliated Tribes of Northwest Indians is a regional organization comprised of American Indians in the states of Washington, Idaho, Oregon, Montana, Nevada, Northern California, and Alaska; and

WHEREAS, the health, safety, welfare, education, economic and employment opportunity, and preservation of cultural and natural resources are primary goals and objectives of Affiliated Tribes of Northwest Indians; and

WHEREAS, federally-reserved rights to water for instream flows and for tribal use are among the most precious rights held by Indian tribes under Treaties, statutes, and executive orders establishing Indian reservations; and

WHEREAS, individual tribal governments have sovereign rights to assert or chose not to assert their water rights; and

The National Congress of American Indians
Resolution #PSP-09-051

TITLE: Support for Sovereign Authority of Tribes to Enter Into Water Agreements

WHEREAS, we, the members of the National Congress of American Indians of the United States, invoking the divine blessing of the Creator upon our efforts and purposes, in order to preserve for ourselves and our descendants the inherent sovereign rights of our Indian nations, rights secured under Indian treaties and agreements with the United States, and all other rights and benefits to which we are entitled under the laws and Constitution of the United States, to enlighten the public toward a better understanding of the Indian people, to preserve Indian cultural values, and otherwise promote the health, safety and welfare of the Indian people, do hereby establish and submit the following resolution; and

WHEREAS, the National Congress of American Indians (NCAI) was established in 1944 and is the oldest and largest national organization of American Indian and Alaska Native tribal governments; and

WHEREAS, federally-reserved rights to water for instream flows and for tribal use are among the most precious rights held by Indian tribes under Treaties, statutes, and executive orders establishing Indian reservations; and

WHEREAS, individual tribal governments have sovereign rights to assert or chose not to assert their water rights; and

WHEREAS, the water rights of a tribe that has not approved a settlement agreement or waiver of tribal water rights should not be impaired by actions of the U.S.

NOW THEREFORE BE IT RESOLVED, that the NCAI does hereby support the exercise of self-determination and sovereign authority by tribes to enter into water agreements, or to reject proposed water agreements, as necessary to protect the rights of its members; and

BE IT FURTHER RESOLVED, that the NCAI does hereby oppose any policy of the U.S. to terminate the rights of, or impose adverse consequences upon, a tribe that chooses to retain its water rights instead of settling on terms desired by the federal government; and

BE IT FINALLY RESOLVED, that this resolution shall be the policy of NCAI until it is withdrawn or modified by subsequent resolution.

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Hoopa Valley Tribal Council

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LEONARD E. MASTEN JR
CHAIRMAN

November 18, 2011

Via E-Mail to: KlamathSD@usbr.gov
and Overnight Delivery

Ms. Elizabeth Vasquez
U.S. Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825

Re: Comments of Hoopa Valley Tribe on DEIS/DEIR for Klamath Facilities Removal

Dear Ms. Vasquez:

The Hoopa Valley Tribe submits the following comments on the Department of the Interior and California Department of Fish and Game's Draft EIS/EIR regarding Klamath Facilities Removal (the "DEIS"). The Tribe has previously submitted comments, dated July 14, 2010, on the Department of Interior's Notice of Intent to Prepare an EIS/EIR (the "Scoping Notice"). The Tribe also submitted extensive comments on the cooperating agency draft of the DEIS dated June 22, 2011. The Tribe incorporates those prior comments by reference, because the DEIS fails to incorporate or adequately address the vast majority of the Tribe's comments.

Interest of the Hoopa Valley Tribe

Since time immemorial, the fishery resources of the Klamath and Trinity Rivers have been the mainstay of the life and culture of the Hoopa Valley Tribe. The fishery was "not much less necessary to the existence of the Indians than the atmosphere they breathed." *Blake v. Arnett*, 663 F.2d 906, 909 (9th Cir. 1981) (quoting *United States v. Winans*, 198 U.S. 371, 381 (1905)). The salmon fishery is integral to the customs, religion, culture, and economy of the Hoopa Valley Tribe and its members. The lower twelve miles of the Trinity River and a stretch of the Klamath River flow through the Hoopa Valley Reservation.

The federal government established the Hoopa Valley Reservation in 1864. The Hoopa Valley Reservation is located in the heart of the Tribe's aboriginal lands; lands the Tribe has occupied since time immemorial. The Hoopa Valley Tribe has fishing and water rights in the Klamath River with a priority date of 1864, as recognized by the United States in the Memorandum from Solicitor of the Department of the Interior to the Secretary of the Interior (Oct. 4, 1993); and the Memorandum from Regional Solicitor, Pacific Southwest Region to the Regional Director, Bureau of Reclamation, Mid-Pacific Region (July 25, 1995) (collectively, "Solicitors' Opinions"); and by federal courts in, for example, *Parravano v. Babbitt*, 70 F.3d 539 (9th Cir. 1995). Congress has recognized and confirmed, for example in the Central Valley

Project Improvement Act, Public Law 102-575, Section 3406(b)(23) (Oct. 30, 1992), that the United States has a federal trust responsibility to restore and maintain the fishery trust resources of the Hoopa Valley Tribe to specified standards. Those standards are recognized in federal law and have become a legal mandate. The Hoopa Valley Tribe's rights are unique. This is unlike the situation where several tribes signed a single treaty reserving rights in common. While other tribes in the Klamath Basin also have water and fishing rights, our rights are distinct in scope, derive from different authorities, and must be treated separately.

The fish and water resources of the Klamath River Basin have been severely and adversely affected by the federal authorization, construction, and operation of the Klamath Reclamation Project and the Klamath Hydroelectric Project upstream of the Hoopa Valley Reservation. The impacts associated with blocked fish passage, nutrient enrichment, loss of habitat, and inadequate instream flows due to the authorization, construction, and operation of the Klamath Reclamation Project and the Klamath Hydroelectric Project have contributed to the listing of the Southern Oregon/Northern California coast (SONCC) coho salmon and its critical habitat under the Endangered Species Act.

The Tribe has actively participated in all proceedings relating to the re-licensing of the Klamath Hydroelectric Project before the Federal Energy Regulatory Commission (FERC), and proceedings to enforce operation of the Klamath Reclamation Project in compliance with the Endangered Species Act and other applicable law. Protection of the Klamath and Trinity Rivers and the aquatic resources therein is of vital importance to the Hoopa Valley Tribe.

The Tribe participated in settlement negotiations leading to the Klamath Hydroelectric Settlement Agreement (KHSA) and Klamath Basin Restoration Agreement (KBRA). Although the Tribe favors the removal of the dams of the Klamath Hydroelectric Project for the purposes of improving water quality and restoring fish passage on the Klamath River, the Tribe did not sign, and enacted a resolution in opposition to the KHSA. The Tribe opposes the KHSA as drafted because it does not require the removal of any dams, but instead establishes an uncertain planning process that could potentially lead to commencement of dam removal in 2020 subject to the achievement of numerous contingent events that include, but are not limited to: (a) enactment of federal legislation; (b) California voter approval of a $250 million bond package; (c) an affirmative determination by the Secretary of Interior that dam removal is in the public interest; and (d) separate concurrences by the states of California and Oregon that dam removal is in the public interest. To date, none of these contingencies have occurred.

The Tribe also opposes the KHSA because it suspends the FERC re-licensing proceeding, suspends the State of California and Oregon water quality certification proceedings, and permits the licensee PacifiCorp to continue operation of the Klamath Hydroelectric Project on terms of annual licenses until at least 2020. The KHSA also fails to provide for interim license measures that will bring the Project into compliance with current state, federal, tribal environmental laws, or applicable water quality standards, or that will adequately mitigate fishery impacts associated with operation of the Project.

The Tribe also did not sign, and enacted a resolution in opposition to, the KBRA because the KBRA conflicts with tribal sovereignty, violates trust duties owed to the Hoopa Valley Tribe by the United States, subordinates tribal water and fishing rights in favor of junior non-Indian irrigation interests without tribal consent, provides inadequate flows for the protection of tribal trust resources, offers a speculative and unfunded program for fishery restoration and water conservation, encourages unsustainable use of groundwater in the Upper Klamath Basin, fails to abate acute nutrient pollution problems and is not based on best available, peer reviewed science. The Tribe also objects to the linkage of the KHSA and the KBRA.

Here, as in all other proceedings related to protection of the Klamath and Trinity Rivers, the Tribe is committed to ensuring that the United States and its respective departments and agencies fulfill their duties to the Tribe and to the Klamath and Trinity Rivers in accordance with applicable law, including NEPA, the Endangered Species Act, Clean Water Act, Federal Power Act, and the federal government's trust responsibility to the Hoopa Valley Tribe.

Comments on Draft EIS/EIR

I. The DEIS Contains An Incomplete Evaluation of Alternatives, Fails to Evaluate the Impacts of the KBRA, and Ultimately Fails to Meet the Purpose of NEPA and CEQA to Facilitate Informed Decision-Making and Public Participation.

The purpose of the NEPA and CEQA environmental review process is two-fold: "First, it places upon [the action] agency the obligation to consider every significant aspect of the environmental impact of a proposed action. Second, it ensures that the agency will inform the public that it has indeed considered environmental concerns in its decision-making process." *Kern v. United States Bureau of Land Management*, 284 F.3d 1062, 1066 (9th Cir. 2002). *See also Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989) (NEPA "ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts; it also guarantees that the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision."); *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1149 (9th Cir. 1997) (same); *Columbia Basin Protection Ass'n v. Schlesinger*, 643 F.2d 585, 592 (9th Cir. 1981) ("[T]he preparation of an EIS ensures that other officials, Congress, and the public can evaluate the environmental consequences independently."). Ultimately, an EIS does not satisfy NEPA unless "its form, content, and preparation substantially (1) provide decision-makers with an environmental disclosure sufficiently detailed to aid in the substantive decision whether to proceed with the project in light of its environmental consequences, and (2) make available to the public, information of the proposed project's environmental impacts and encourage participation in the development of that information." *Trout Unlimited v. Morton*, 509 F.2d 1276, 1283 (9th Cir. 1974).

The DEIS here fails to meet the standards set forth above primarily through its failure to adequately disclose and evaluate the impacts associated with the KBRA. As the DEIS confirms, the KBRA is a connected and interdependent action. Yet, the DEIS does not adequately disclose the impacts of the KBRA. Nor does the DEIS consider or evaluate alternatives to the KBRA.

The DEIS misleads the public and the decision-makers to believe that the KBRA is an agreement that will result in fishery protection and environmental restoration. The DEIS continually makes the incorrect statement that the KBRA "limits" irrigation water diversions below levels currently allowed by law. In fact, the KBRA will result in inadequate (and unlawful) flows for fish at critical times of dry water years, will result in a historic termination of the United States responsibilities to Indian tribes in the Klamath basin, will turn Western water law on its head by subordinating senior tribal water rights to junior irrigation interests, and will support otherwise unsustainable consumptive agricultural practices through hundreds of millions of dollars in public subsidies. In addition, the DEIS fails to inform the public and the decision-makers that any benefits that could derive from the KBRA for fish are speculative at best, given the need for congressional authorization and appropriations of funding that are not likely to occur.

The Tribe believes that dam removal is necessary and in the public interest. Improvements in water quality, volitional fish passage, and a free-flowing Klamath River are critical to support the Tribe and the river that runs through its homeland. However, the benefits of dam removal will not be achieved if tied to the KBRA. The proposed action may lead to a river without dams, but with the KBRA it will also lead to a river without sufficient water in the river for fish at critical times of the year. The impacts of the KBRA's guaranteed diversions and associated tribal trust violations will not be evaluated in subsequent NEPA processes. The public, the Governors, the Departmental decision-makers, and Congress need to be made fully aware of the consequences of, and alternatives to, the KBRA. The DEIS fails in that regard.

II. The Purpose and Need Statement Should Delete Reference to Consistency with the KBRA.

CEQ Regulation 1502.13 requires that an EIS "briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." As stated in the DEIS, the purpose and need statement "is a critical part of the environmental review process because it helps to set the overall direction of an EIS/EIR, identify the range of reasonable alternatives, and focus the scope of analysis." Final Alternatives Report, p. 2-1.

The DEIS describes the purpose of the Proposed Action as follows: "to achieve a free flowing river condition and full volitional fish passage as well as other goals expressed in the KHSA and KBRA." The need is described as: "to advance restoration of the salmonid fisheries in the Klamath Basin consistent with the KHSA and the connected KBRA." The Department should delete the references to consistency with the KHSA and KBRA. This EIS is being prepared to inform the Secretary of the Interior and the Governors of the States of Oregon and California whether "Facilities Removal (i) will advance restoration of the salmonid fisheries of the Klamath Basin, and (ii) is in the public interest, which includes but is not limited to consideration of potential impacts on affected local communities and Tribes." KHSA, Sec. 3.3.1; DEIS, p. ES-2. Consistency with the KBRA is not a factor in the Secretarial Determination or the Governors' concurrence and should not guide the selection of alternatives here.

As the Tribe warned in its July 14 scoping comments, tying the purpose and need of the Proposed Action to KBRA implementation has resulted in an unreasonably narrow, and unlawful, alternatives analysis. As discussed in more detail below, an alternative that removes all four facilities without execution and implementation of the KBRA would achieve the purpose of "a free flowing river condition and full volitional fish passage" and would "advance restoration of the salmonid fisheries" and would be in the public interest. In addition, such an alternative would be feasible. However, by requiring consistency with the KBRA in the purpose and need statement, the Department was unable or unwilling to consider a no-KBRA alternative. *See* Final Alternatives Report, Section 2.3, Chapter 4 (establishing consistency with KBRA as factor for screening alternatives).

III. The Alternatives Analysis Fails to Comply With Requirements of NEPA and CEQA.

The alternatives analysis is the "heart of the environmental impact statement." 40 C.F.R. § 1502.14. The EIS must "rigorously explore and objectively evaluate all reasonable alternatives," and "devote substantial treatment to each alternative . . . so that reviewers may evaluate their comparative merits," including "reasonable alternatives not within the jurisdiction of the lead agency. 40 C.F.R. § 1502.14(a),(b),(c); *see also* 43 C.F.R § 46.420(c) (defining "range of alternatives").

The CEQ publication "NEPA's Forty Most Asked Questions" confirms that in establishing a reasonable range of alternatives, "the emphasis is on what is 'reasonable' rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative." Question 2a. The CEQ publication adds that "an alternative that is outside the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable. . . . Alternatives that are outside the scope of what Congress has approved or funded must still be evaluated in the EIS if they are reasonable, because the EIS may serve as the basis for modifying the Congressional approval or funding in light of NEPA's goals and policies." Question 2b.

For the reasons discussed below, the alternatives analysis in the DEIS is deficient:

A. The Description of the No-Action Alternative Is Inaccurate and Misleading and Does Not Facilitate Informed Decision-Making.

The alternatives analysis in an EIS is required to evaluate a No-Action Alternative. 40 C.F.R. § 1502.14(d). The No-Action Alternative is required to discuss both the existing conditions "as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved." CEQA Guidelines Section 15126.6(e)(2). The DEIS states that "[f]or the purposes of this analysis, the No Action/No Project Alternative will continue current operations with the Four Facilities remaining in place and PacifiCorp operating under the current annual license." DEIS, at ES-21. This is an inaccurate and misleading description of what would happen in the event of no-action, or a negative Secretarial Determination. As a result, the decision-makers and the public have not been presented with an accurate No-Action Alternative to compare with the other alternatives.

In the event of a negative Secretarial Determination or adoption of the "No-Action" alternative the FERC licensing process will resume. All events in the FERC licensing process have been completed except for the completion of the Section 401 water quality certification (which is currently contractually barred from completion under the KHSA). If the KHSA and KBRA terminate, the States would resume the certification process and a new FERC license would issue "in the foreseeable future." Indeed, the California State Water Resources Control Board Resolution No. 2011-0038, adopted August 16, 2011, makes clear that the Water Board expects that the environmental review process here "will facilitate completion of the State Water Board's 401 certification process for the relicensing proceeding should that become necessary because the Secretarial Determination does not occur by April 30, 2012."

The Departments of Interior and Commerce have already prescribed final and binding conditions pursuant to Section 4(e) and 18 of the Federal Power Act (including volitional fishway prescriptions) which must be included in the new license. *Escondido Mut. Water Co. v. La Jolla Band of Mission Indians*, 466 U.S. 765 (1984) (FERC must include the Departments mandatory conditions and prescriptions); *City of Tacoma v. FERC*, 460 F.3d 53 (D.C. Cir. 2006) (same).

It is not correct that the Klamath Hydroelectric Project would continue operating on annual licenses, with no protective terms and conditions, for "the foreseeable future" in the event that the KHSA terminates. The foreseeable No-Action scenario is not perpetual operation of the Klamath Hydroelectric Project under a long-expired license. Instead, the foreseeable No-Action scenario is one in which the Klamath Project is re-licensed, subject to the Departments mandatory Section 4(e) and 18 conditions and fishway prescriptions, as well as any conditions imposed under the authority of Section 401 of the Clean Water Act for compliance with water quality standards of the States of Oregon and California, and the Hoopa Valley Tribe.

By failing to describe the reasonably foreseeable No-Action scenario, the DEIS artificially makes the proposed action (dam removal plus KBRA implementation) seem more attractive than it really is. A properly framed No-Action alternative would describe issuance of, and project operations under, a FERC license that provided volitional passage and compliance with state and tribal water quality standards. In addition, the KBRA and its guaranteed water diversions and tribal claim waivers would not occur. Thus, the Klamath Reclamation Project would continue to be managed in accordance with existing and future limitations on diversion required by the Endangered Species Act and other applicable law.

The problems associated with the No-Action Alternative, as currently framed, are evident in the discussion of water quality impacts. The evaluation of the No-Action Alternative, in Section 3.2's discussion of water quality repeatedly states that the "continued impoundment of water at the Four Facilities under the No Action/No Project alternative would result in no change from existing conditions." This statement rests on the erroneous premise that the Project would be allowed to continue operating out of compliance with state and tribal water quality standards. In fact, under a properly framed No-Action Alternative, the FERC process would resume and the States of Oregon and California, and the Hoopa Valley Tribe, would impose conditions on continued operation designed to ensure compliance with the applicable standards. Under

existing federal and state law, the Project could not be permitted to continue operating in a manner that violated the applicable water quality standards.

In summary, continued un-mitigated operation of the Klamath Hydroelectric Project is not likely, foreseeable, or reasonable if Facilities Removal fails to occur pursuant to the KHSA process. The No-Action Alternative should be modified to reflect the likely outcome of a resumption of the FERC licensing process.

B. Analysis of the Proposed Action Alternative Is Inadequate Because It Fails to Evaluate the Effects of the KBRA's Guaranteed Minimum Irrigation Diversions on the Fishery.

The Proposed Action is described as Facilities Removal (i.e., decommissioning and removal of Iron Gate Dam, Copco Dams 1 and 2, and J.C. Boyle Dam). The Department considers the KBRA to be connected to the Proposed Action; however, the DEIS and its supporting documents confirm that less water will be available for flows at Iron Gate Dam under the Proposed Action (i.e. Reclamation (2011), pages 6-9 and 6-10; Figure 1) but do not actually evaluate or disclose the adverse consequences to water flow and the fishery that will result from federal execution and implementation of the KBRA. Hydrology modeling in Reclamation (2011) shows that flows under the Proposed Action will be 200 - 400 cfs less than what would otherwise be available under the No Action alternative. Additionally, both the Proposed Action and the No Action alternative fall consistently short of the instream flow recommendations in Hardy et al. (2006), except during extremely wet hydrologic conditions (Figure 2). The DEIS must fully disclose to the decision-makers and to the public that dam removal tied to the KBRA will not achieve the goals of fishery restoration, because there will not be water of sufficient quantity and quality left in the river for the fish at critical times in dry water years.

Both before the KBRA and KHSA were signed, and throughout this NEPA process, the Hoopa Valley Tribe has urged that modeling be completed which compares the water flows needed for fish restoration to those projected to become available under the KBRA. For example, in Additional Modeling and Analytical Work Needed (February 5, 2008), the Hoopa Valley Tribe and others urged modeling "that will achieve modified Hardy II Iron Gate flow targets. . . . [and determine] the Project diversions allowable while meeting April 1 through September 30 Hardy II Iron Gate flow targets." The document further requested "a written procedure for operationalizing the Hardy II flows. . . . intended to help determine the amounts that will be available for diversion in time steps throughout the summer and winter months."

On June 16, 2009, Hoopa Tribal Fisheries Director, Mike Orcutt, wrote to Associate Deputy Secretary of the Interior, Laura Davis, urging the Department "to conduct the additional analyses discussed . . . to illuminate the feasibility of KBRA water management schemes . . . .in advance of final federal decision-making and before KBRA legislation is introduced in Congress." On July 2, 2009, Hoopa Tribal Chairman Leonard E. Masten also wrote to Associate Deputy Secretary of the Interior, Laura Davis, urging completion of modeling and noting that "[s]uch modeling was also requested in the February 5, 2008, list of studies that we previously sent you." In response, Associate Deputy Secretary Laura Davis, on September 11, 2009, reported that work had been done "to identify additional scientific analyses that may better

inform review of the draft KBRA." Ms. Davis referred to the February 5, 2008, request and said "[o]ther issues will be addressed by additional modeling described above." Nevertheless, the DEIS fails to disclose any modeling of implementation of the Hardy II flows recommended for fish restoration and does not examine how such flows could be operationalized to permit continued water diversions for the irrigation project.

The DEIS also misrepresents the facts, unsuccessfully attempting to claim the KBRA will be better for fish. For example, page 3.3-99 references Hetrick et al. (2009), citing that fall-run Chinook under "KBRA type flows showed the greatest benefits in years when production was low." This summary conclusion in Hetrick et al. 2009 is stated in the Anadromous Fish Production section under PRE-DAM results. Modeling results for POST-DAM removal did not state the same result regarding the ratio of benefits to production in low production years (Hetrick et al. 2009).

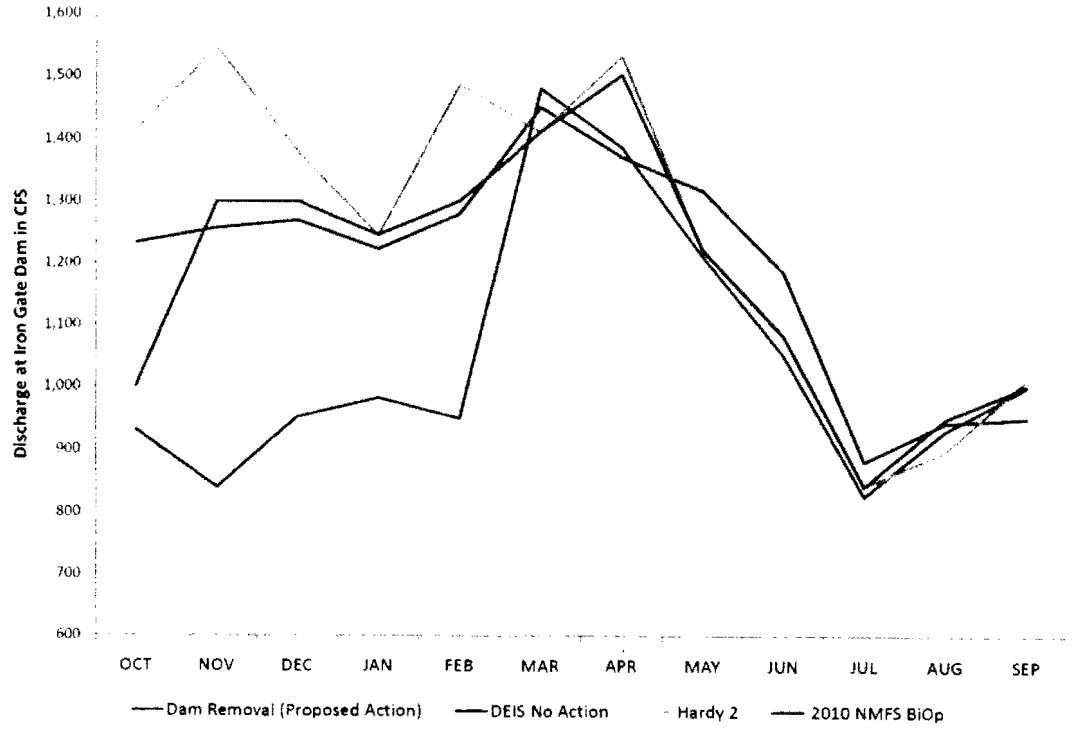

Figure 1. Comparison of 90% exceedance discharge at Iron Gate Dam for the DEIS Proposed Action, DEIS No Action, Hardy et al. (2006) and the NMFS Biological Opinion (2010). Note dry year Proposed Action flows are well below thresholds established in the NMFS Biological Opinion (2010) and Hardy et al. (2006) during most months, and especially during November through February. Chinook fry emerging beginning in December (Hardy et al. 2006) will be affected by insufferably low winter flows.

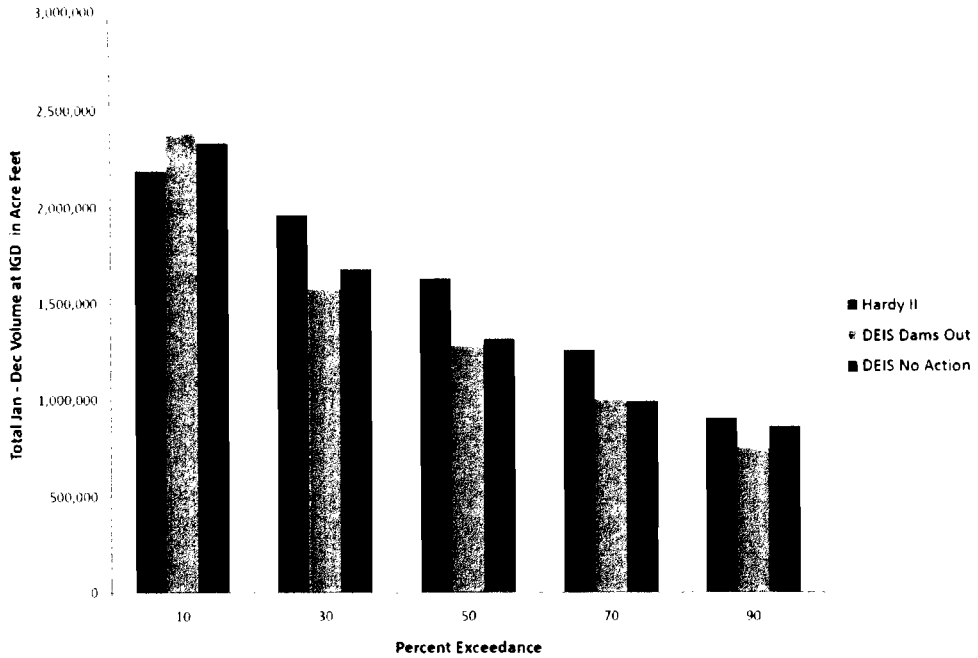

Figure 2. Hardy et al. (2006) Iron Gate Dam instream flow recommendation water volumes compared to both DEIS alternatives. Both the Proposed Action and No Action are well below Hardy et al. (2006) recommendations for instream fisheries needs in all exceedance year types except during extremely wet annual hydrologic conditions.

Throughout the DEIS, the effect of the KBRA Water Diversion "Limitation" is inaccurately described. For example, page ES-19 states that a key outcome of the KBRA is that the Klamath Reclamation Project's water users have agreed to "accept reduced water deliveries." At page 3.7-19, the DEIS states that "the Water Diversions Limitations program (KBRA Section 15.1) would reduce the availability of surface water for irrigation on Reclamation's Klamath Project to 100,000 acre-feet less than the demand in the driest years to protect mainstem flows." Similarly, page 3.8-20 states "Water Diversions Limitations would be implemented during dry years to increase flows for fisheries by reducing Reclamation's Klamath Project Diversion up stream of approximately 100,000 acre-feet."[1] Both of these statements are completely false. Not only is 100,000 acre-feet not reduced from current demand, the DEIS's Proposed Action's modeled water volume falls well below ESA requirements established in the 2010 National Marine Fisheries Service (NMFS) Biological Opinion (Figure 3) for dry water year types. A comparison of required versus available water volume totals for the January through December time period reveals water volumes established in the 2010 NMFS Biological Opinion would not be met in four out of six water year types (66%). None of the sections referring to the mythical 100,000 acre-feet or any other part of the DEIS, reveals that the existing legal limitations in the

[1] We find it unusual that the reference to this mysterious 100,000 acre feet water volume savings first appears in an earlier draft of Hetrick, et al. (2009) but is not included in the Final version of the same report.

applicable Biological Opinions independently prevent the Project from satisfying irrigation demand in dry years. The analysis of the KBRA flows in the DEIS appears to rely on irrigator water usage from years *prior to* BiOp implementation. The large irrigation diversions noted in the DEIS occurred prior to the BiOp and are illegal now under the ESA. The KBRA would change that by guaranteeing a minimum diversion for irrigators to the detriment, not the benefit, of fish.

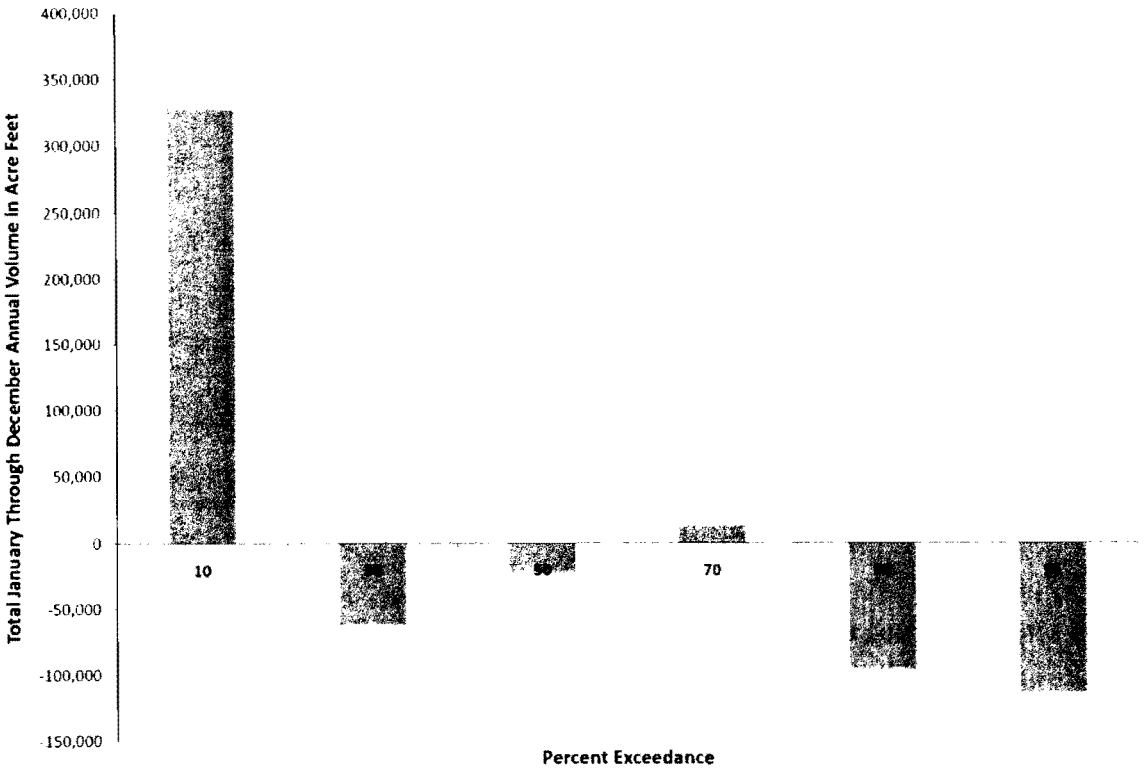

Figure 3. DEIS Proposed Action water volume[2] shortages when compared to volumes required to satisfy the 2010 NMFS Biological Opinion[3] for January through December volumes. Volumes are calculated from Iron Gate Dam releases.

The purported "limitation" on diversions in the KBRA is nothing of the kind and will actually work to negate benefits of dam removal. The purpose of the KBRA is not to limit diversions, but to guarantee a firm minimum amount of water for irrigation diversions that exceeds currently legal levels. Those diversions, which under the KBRA would be 330,000 to

[2] DEIS Proposed Action water volumes were calculated from exceedance tables presented in Appendix F of (Reclamation 2011).

[3] 2010 NMFS Biological Opinion water volumes were calculated from Table 18 of (NMFS 2010).

385,000 acre-feet per year, would trump the in-stream flow needs of fish and other aquatic organisms, especially in drier water years (Figure 4). DEIS hydrology model results indicate that the Proposed Action will result in a buffering of Agricultural Supply water volumes in dry years above what would otherwise be available. Meanwhile, the river suffers a penalty of a volume reduction that violates the 2010 NMFS Biological Opinion (Figure 3). While the DEIS states ESA compliance will continue, it fails to describe *how* this will be achieved given the clear shortage of water volume under the KBRA. The United States would be legally obligated to defend the irrigators' diversion rights against the interests of fish and Indian tribes in the Klamath Basin. The KBRA thus subordinates senior tribal rights to water for fish in favor of junior irrigation interests. In the case of the Hoopa Valley Tribe, this subordination occurs without the Tribe's consent – effectively terminating Interior's trust obligation to the Tribe in this context. The DEIS leaves the wrong impression that the KBRA limits irrigation diversions below the level that can lawfully occur under the existing BiOp.

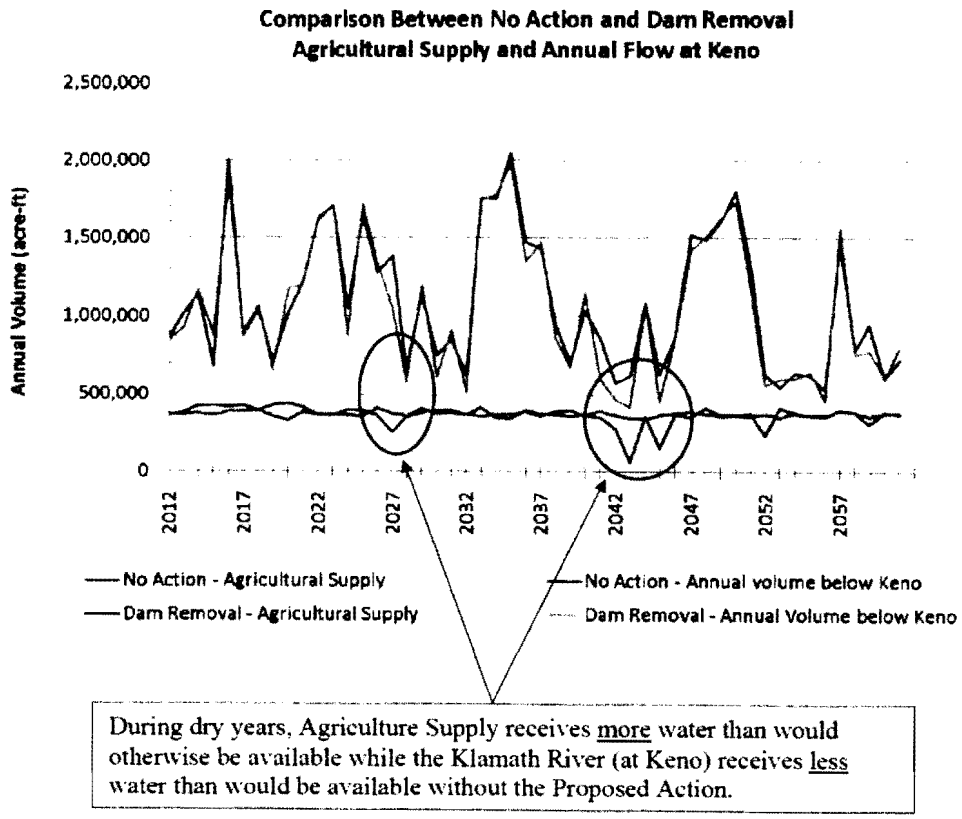

Figure 4. The DEIS Proposed Action favors Agricultural Supply in dry years, providing a guarantee of more water than would be available under the No Action Alternative, which includes the flow requirements established in the 2010 NMFS Biological Opinion. Conversely, the river is penalized by a decrease in available water under the Proposed Action. Adapted from Reclamation (2011), page 6-18. This modeling comparison does not indicate irrigation will be reduced by 100,000 acre feet from current demand, as erroneously represented in the DEIS (i.e. page 3.7-19).

Analysis of the KBRA's guaranteed diversions shows that water flows in the vicinity of Iron Gate Dam would frequently fail to meet the requirements of the NMFS Biological Opinion for protection of salmon in the mainstem Klamath River (Figure 3). The flows in the BiOp are those necessary to avoid placing the fish in jeopardy of extinction. The guaranteed diversion of 330,000 acre-feet for irrigators will, in 66% of water years, leave too little water in the Klamath River to meet the requirements of the Coho Salmon BiOp flow requirements (Figure 3). Flows under the KBRA (Appendix E-5) will fall to below 450 cfs if water years similar to 1992 occur in the next 50 years. During the massive fish die-off in 2002 (in which 70,000 adult salmon died), flows in the river were 750 cfs. (Guillen 2003, CDFG 2004).

The Department cannot avoid analyzing the impacts of the diversion limitations in this EIS. The commitments related to the diversion limitations will become binding once the Secretary of the Interior signs the KBRA. Since the Secretary will be bound to honor the water balance and diversion guarantees prescribed in the KBRA upon signing, there will be no point in the future at which to analyze the effect of the diversion guarantees under NEPA. The Secretary will lack discretion to not honor the diversion guarantees once the necessary conditions are met.

The Department must analyze the effect of the KBRA and its diversion guarantees now. The Department concedes that the KHSA and KBRA are interdependent. The Department cannot tout the benefits of dam removal while ignoring the harm that will result from the associated KBRA. Nor can the Department fail to examine the KBRA water diversion impacts by analyzing the KBRA at a "programmatic" level. Examination of the KBRA at a programmatic level does not excuse the Department from analyzing and disclosing the known impacts associated with the program. The minimum diversions guaranteed by the KBRA are known now, will be non-discretionary once the KBRA is executed, have significant impacts associated with them, and therefore must be evaluated now.

C. The Alternatives Analysis is Incorrect in Concluding a The Proposed Action Will Result in a Positive Geomorphic Effect

Fluvial geomorphic function is critical for habitat creation and maintenance for rearing and spawning anadromous salmonids. Geomorphic function is also essential for naturally functioning physical processes (i.e. bar development, scour) in a dynamic river system. Reclamation (2011) cites the existing condition median bed mobilization flows for Slight and Significant Bed Mobilization flows as 9,800 and 15,900 cfs respectively (Table 1). That is, to significantly mobilize the bed of the Klamath River below Iron Gate Dam, a median flow of 15,900 cfs is required.

Slight Mobilization is defined by Reclamation (2011) as "a small, but measurable, sediment transport rate. Armor layer is only minimally disturbed and there may be flushing of sand to a depth of the D_{90}." Reclamation (2011) also defines Significant Mobilization as "many particles are moving and there is a significant sediment transport rate. Sand is mobilized in the interstitial spaces of the bed and to a depth of twice the D_{90}. The armor layer is significantly disturbed. Given these definitions, we believe a Significant Mobilization is required in river downstream of Iron Gate Dam to recover geomorphic function and mitigate bed armoring caused by Iron Gate Dam, constructed in 1962. While the geomorphic effect of Iron Gate Dam clearly

extends beyond the first ten miles downstream, Table 1 includes only mobilization flows for the first ten river miles, for discussion purposes.

Reach	River Mile	Slight Bed Mobilization Flow (cfs)			Significant Bed Mobilization Flow (cfs)		
		Low	Median	High	Low	Median	High
Bogus Creek to Willow Creek	190.33-185.83	7,000	**9,800**	13,100	11,500	**15,900**	21,300
Willow Creek to Cottonwood Creek	185.23-182.95	7,700	9,800	13,100	12,500	17,200	22,900
Cottonwood Creek to Shasta River	182.95-179.17	5,900	8,400	11,300	9,700	13,800	18,400

Table 1. Bed mobilization flow requirements for the ten miles of river below Iron Gate Dam (Bogus Creek to the Shasta River). Mobilization flows reported in Reclamation (2011). River miles reported in Ayers (1999). Median discharge required for the first 4.5 miles downstream of Iron Gate Dam in bold for discussion purposes (see text).

The modeled hydrology for the period between 2011 and 2061 does not meet the flow threshold for a Significant Bed Mobilization flow (15,900 cfs) even once (Figure 5). As a result, the reaches downstream of Iron Gate Dam will suffer in their ability to recover from the harmful effects caused by sediment starvation and bed armoring over the past fifty years. Because neither the Proposed Action nor No Action Alternatives meet the geomorphic needs of the Klamath River downstream of Iron Gate Dam, additional flow management provisions will be required to ensure adequate geomorphic recovery. The additional coarse sediment provided by the upstream Iron Gate Reservoir will not be a benefit if there is not sufficient flow to mobilize it downstream over time.

Reclamation (2011) is incorrect when it concludes, "It is expected that the reach between Iron Gate and Cottonwood Creek will have improved habitat function under the Dam Removal Alternative than under the No Action Alternative." Reclamation (2011) bases this future-condition geomorphic assessment off the Slight and not Significant Mobilization threshold. Given a Slight Mobilization event will do little more than flush sand (as defined by Reclamation), we find this conclusion in error.

Reclamation (2011) also asserts that the return period for future sediment mobilization flows will decrease – sediment is predicted to mobilize more frequently. We also find this conclusion incorrect. Reclamation's (2011) model results for reach average D_{50} (coarse sediment) for the short distance between Iron Gate and Bogus Creek actually coarsens post-dam removal, while the Willow Creek to Bogus Creek reach does decrease in grain size slightly. The Cottonwood Creek to Willow Creek reach shows the greatest shift in grain size, but the Shasta to Cottonwood reach indicates no change in grain size. Given grain sizes for these reaches are not consistently (or significantly) trending downward, we find it dubious that the modeled return

period (for a Slight Mobilization event) would actually decrease, as predicted by Reclamation (2011) and the DEIS. Model results for the Significant Mobilization return period would have been far different, resulting in a longer return period likely only to be met during extreme flood conditions (i.e. 100-year floods).

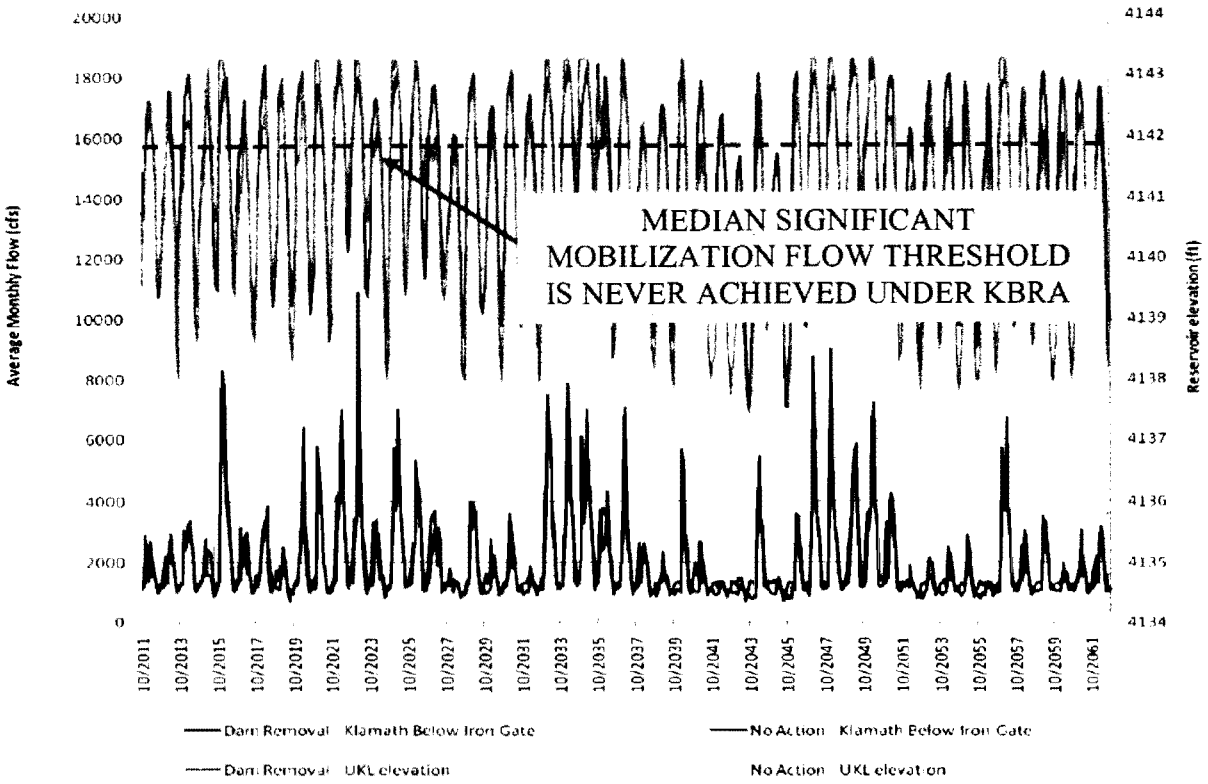

Figure 5. Modeled Iron Gate Discharge 2011-2061 contrasted with the median threshold (15,900 cfs) for Significant Bed Mobilization, which is never achieved. The low threshold for Significant Bed Mobilization (11,500 cfs) and the median threshold for Slight Bed Mobilization (9,800 cfs) is met only once in the fifty year forecast. Adapted from Reclamation (2011).

D. The Alternatives Analysis Is Inadequate Because It Fails To Evaluate A No-KBRA Alternative.

The EIS must evaluate an alternative of full Facilities Removal without execution or implementation of the KBRA. The omission of a Facilities Removal/No-KBRA alternative in the EIS renders it out of compliance with NEPA, because the No-KBRA alternative is both feasible and would be the alternative most likely to result in restoration of the fishery. Under this scenario, Klamath Hydroelectric Project dams would be removed, but diversions to the Klamath Reclamation Project would continue to be managed under currently applicable laws, such as the ESA, without the guaranteed diversions prescribed by the KBRA. The purpose of volitional

passage and a free flowing river would be achieved and the flows would continue to be managed for the fish first, and irrigation second.

It is clear that the failure to analyze a No-KBRA alternative violates NEPA and CEQA requirements. The No-KBRA is both a reasonable and a feasible alternative. The Department's own analysis concedes that the No-KBRA alternative would (i) remove dams to allow the river to flow freely; (ii) provide for full volitional fish passage; (iii) provide access to more of the watershed; (iv) create a free-flowing river, which would reduce quality concerns within existing reservoirs; and (v) is technically feasible. Final Alternatives Report, Section 4.2.8.

The DEIS contends that it is reasonable to not evaluate the no-KBRA alternative because that alternative "does not meet the purpose and need under NEPA." But, as stated above, it is improper to tie the KBRA to dam removal. The purpose of the EIS evaluation is to determine what is best for the fish and the health of the river. Agricultural subsidies and guaranteed irrigation diversions have little to do with that analysis. Also, the failure to evaluate a no-KBRA alternative deprives the decision-makers and the public of the information needed to determine if the no-KBRA alternative would better achieve the fishery and river-restoration goals, and without the need for $1 billion in subsidies, fundamental changes in existing law, and termination of tribal trust interests. The need to evaluate a no-KBRA alternative is especially important in light of the fact that the KBRA and KHSA require Congressional authorizations. Evaluation in this EIS of dam removal without the KBRA and its associated problems would assist the decision-makers in determining the best course of action.

E. The Alternatives Analysis is Inadequate Because It Fails to Evaluate a Federal Takeover Alternative.

The EIS must evaluate an alternative in which the Secretary does not render a Determination pursuant to the terms of the KHSA, but rather exercises authority to takeover the Klamath Hydroelectric Project pursuant to Section 14 of the Federal Power Act, 16 U.S.C. § 807 and/or supplemental Congressional authorization. Like the dam removal/no-KBRA alternative, this alternative would achieve the goals of volitional fish passage, improved water quality, and a free-flowing river without the harmful consequences and expense of the KBRA. The Final Alternatives Report, Section 4.2.13, contends that the Federal Takeover alternative is not superior to the Proposed Action because dam removal would occur on generally the same time-frame under both alternatives. There is no support for this statement. The KHSA artificially delays commencement of dam removal until 2020 or later solely to benefit the private hydropower licensee that has been operating on the terms of an expired 1950's era-license since 2006. There is simply no justifiable basis to allow PacifiCorp to continue its unmitigated operation of the Klamath Project for another decade. A federal takeover alternative, similar to that successfully implemented on the Lower Elwha River in Washington State, could disregard the KHSA terms solely designed to benefit the private licensee and commence dam removal years earlier for the benefit of the river and its resources.

F. The Alternatives Analysis Is Inadequate Because It Fails to Evaluate, or Even Consider Evaluation of the Water Quality Improvement Strategy Alternative Recommended by the Tribe in Scoping, or Any Alternative That Will Ensure Compliance With Hoopa Valley Tribe Water Quality Standards.

In its July 2010 scoping comments, the Tribe recommended evaluation of a Dam Removal/Water Quality Improvement Strategy alternative that would replace the KBRA measures with an alternative approach consisting of refilling Lower Klamath Lake using Lost River winter water, somewhat expanding the footprint of Tule Lake, and restoring riparian zones along the entire lower Lost River and Keno Reach of the Klamath River. The Tribe's scoping comments referenced the Klamath Basin Trial Water Quality Work Group comments on the Klamath River TMDL, found at http://www.schlosserlawfiles.com/~hoopa/LostRiverTMDL.pdf. The DEIS fails to address this proposed alternative or provide any explanation for why it was not evaluated.

The DEIS, as drafted, fails to evaluate any alternative that will result in full compliance with Hoopa Valley Tribe water quality standards. Section 3.2 notes the existence of applicable water quality standards enacted by the Hoopa Valley Tribe, but fails to adequately address whether the Proposed Action of dam removal with associated implementation of KBRA flows, (or some other alternative) will ensure compliance with the tribal standards. We attach the Patrick Higgins, "KHSA and KBRA Likelihood of Meeting Hoopa Valley Tribe Klamath River Water Quality Standards" (October 6, 2011), which details this problem. In fact, certain statements in the EIS confirm that the Proposed Action will continue to result in violations of Hoopa standards. *See* page 3.2-103 (stating that Total Nitrogen (TN) levels will continue to exceed Hoopa objectives).

G. The Alternatives Analysis Is Inadequate Because It Fails to Evaluate Any Alternatives to the KBRA.

The proposed action assumes that the KBRA will be executed and implemented. The proposed action assumes that the KBRA is an interdependent component of a comprehensive program to restore the Klamath River. Yet, in addition to failing to consider an alternative in which dams are removed without the KBRA, the DEIS also fails to consider or evaluate any substantive alternatives to the KBRA. The execution of the KBRA, as argued throughout these comments, is a major federal action with significant known environmental impacts. The failure to fully evaluate the impacts of, and alternatives to, the KBRA is a violation of NEPA.

Assertions that the impacts of the KBRA will be evaluated at a later time are incorrect given the non-discretionary nature of many of those programs, such as the diversion guarantees. In addition, the proposed legislation attached as an Exhibit to the KBRA and KHSA would exempt the KBRA execution from NEPA review. Of course, that legislation has not been enacted (or even introduced) and thus the Department has a currently binding obligation to review the KBRA under NEPA. The public, Congress, and decision-makers in the Department must receive the benefit of a thorough alternatives analysis which considers the pros and cons of the KBRA and whether there are alternative approaches that would achieve the river restoration goals with less impact.

IV. The EIS Fails to Evaluate the Impacts of the Proposals for Legislation, Which Are An Express Prerequisite of the KBRA and KHSA.

NEPA requires that federal agencies prepare an environmental impact statement for "every recommendation or report on proposals for legislation . . . significantly affecting the quality of the human environment." 42 U.S.C. § 4332(C). In this case, the action being analyzed is specifically tied to and dependent on enactment of federal legislation containing specific elements proposed by the Department and other parties to the KHSA and KBRA. Pursuant to Section 3.3.4 of the KHSA, the Secretary will be barred from rendering any determination on dam removal unless Congress first enacts "federal legislation, which . . . is materially consistent with Appendix E [of the KHSA]." Appendix E of the KHSA is entitled "Elements for the Proposed Federal Legislation" and contains a detailed list of specific proposed elements for legislation related to both the KBRA and the KHSA. Even if the Secretary determines that dam removal is clearly in the public interest, will restore fisheries, and provide for a free-flowing river, the Secretary cannot, consistent with the KHSA, make any public determination about the benefits of dam removal unless the proposed legislation is enacted.

There are significant environmental consequences that will flow from the enactment of the KHSA and especially the KBRA that require complete analysis in the EIS. Of most significance are the effects associated with the guaranteed minimum diversions of the KBRA, the impacts of the $1 billion in subsidies that encourage unsustainable agricultural practices, impacts on the Trinity River Restoration Program, and the historic termination of tribal trust rights. Given that the enactment of the proposed legislation is a direct prerequisite to the Secretary's determination in this proceeding, the EIS must fully evaluate the impacts associated with the proposals for legislation that would authorize implementation of the KHSA and KBRA.

The proposed legislation, and execution of the KBRA, would also undermine enforcement and compliance with the Endangered Species Act. Although the EIS repeatedly states that the KBRA programs, and the irrigation diversions by the Klamath Reclamation Project, would need to comply with the ESA, this is clearly inconsistent with the text of the KBRA, which is designed to constrain NMFS and USFWS ability to protect threatened and endangered species. *See* KBRA, Sections 21.3.1 and 22.4. The objective of the parties under the KBRA is that reductions in flows to irrigators below those prescribed in the KBRA "will be a last and temporary resort to prevent jeopardy under the [ESA]." KBRA, § 21.3.1.B.ii.c. This objective is plainly inconsistent with the science (which shows flow to be the most significant factor affecting fish health) and the law (which mandates that the agencies protect endangered and threatened species based on the best available science).

Since Congress is not limited by the terms of the KBRA and KHSA, an EIS that accurately and completely describes and evaluates the full suite of reasonable and feasible alternatives, including a dam removal/no-KBRA alternative and a federal takeover and decommissioning alternative, is critical.

V. The DEIS Fails To Adequately Evaluate and Disclose the Impacts of the KBRA, and Overstates Its Potential Benefits, Precluding Informed Public Participation and Decision-Making.

The DEIS states that the KBRA is a connected action requiring analysis under NEPA. It is true that the KHSA and KBRA have been drafted as interdependent components of a larger plan relating to Klamath Basin restoration. Although the DEIS states that the KBRA is a connected action, the DEIS then fails to adequately describe or evaluate its impacts. Even if the KBRA is evaluated at a more general, programmatic, level, the EIS still must evaluate those aspects of the KBRA that have known or foreseeable impacts, in addition to any components that will not be evaluated under NEPA in the future. Describing the KBRA as "programmatic" does not excuse the Department from actually evaluating the known impacts of the KBRA that are ripe for evaluation.

Some of the key elements of the KBRA that are not adequately described and evaluated are the minimum guaranteed water diversions, the potential impacts on the Trinity River Restoration Program, and the unconsented subordination and waiver of trust obligations relating to tribal water rights. There will not be any future NEPA analysis of the impacts of the guaranteed water diversions because implementation of those diversions will be non-discretionary; therefore, a full analysis must occur now prior to approval and execution of the KBRA. The DEIS also improperly assumes that the various fisheries restoration and other programs are likely to occur when, in fact, those programs depend entirely on funding from Congress that is unlikely to materialize. In summary, the impacts of the KBRA are either not evaluated or minimized, while the benefits of the KBRA are made to appear more certain than they actually are. The public and decision-makers need to be made aware that approval of the KBRA could result in a scenario in which dam removal occurs, but there is insufficient water left in the river for fish to survive and the promised programs for fisheries fail to materialize.

Due to the need for substantial Congressional appropriations, the purported benefits of the KBRA are highly speculative, especially in today's political climate. The DEIS fails to adequately discuss the likely scenario in which the purported benefits from the KBRA are not achieved due to lack of Congressional funding. The KHSA and KBRA were signed in early 2010 and their implementation expressly depends on the enactment of federal legislation. Yet, we now approach the end of 2011 with no legislation even introduced. With good reason, there simply is not support from any member of Congress to propose spending nearly $1 billion on needless subsidies for unsustainable agricultural practices. Nor is there support in Congress to introduce legislation that unilaterally terminates Indian trust obligations. The DEIS needs to more fully explain that the purported environmental benefits of the KBRA are highly speculative and may not ever occur to offset the impacts of the guaranteed diversions for irrigation.

Even if funding does occur, the DEIS fails to adequately explain that the KBRA does not contain any fish restoration goals. It establishes no target salmon sizes or harvest goals. The KBRA simply calls for funding without any definition of success. The failure to connect the funding to any defined performance measures is likely another obstacle to obtaining Congressional funding in the current economic and political environment.

Numerous sections of the EIS require additional comprehensive discussion of the impacts of the KBRA on water, aquatic resources, and tribal trust rights, especially including Sections 3.2 (water quality), 3.8 (water supply/water rights), 3.12 (tribal trust) and 3.16 (environmental justice). These sections fail to openly disclose the negative consequences that will result from the KBRA's guaranteed minimum diversions and un-consented subordination of tribal trust rights, presenting only a one-sided view of the KBRA to the public and decision-makers.

VI. The DEIS Fails To Disclose That Execution and Implementation of the KBRA Would Result in a Historic Termination of the United States Trust Relationship With Klamath Basin Indian Tribes With Respect to Protection of Reserved Water and Fishing Rights and Would Unlawfully Result in an Un-consented Subordination of Senior Tribal Water Rights to Junior Water Rights of Non-Indian Irrigators.

In the KBRA, the United States provides assurances, without the consent or approval of the Hoopa Valley Tribe, that the United States will not assert the Hoopa Valley Tribe's tribal water, fishing, or trust rights, in a manner that will interfere with the Klamath Reclamation Project's annual diversion of 330,000 acre-feet of water from the Klamath River (the "Assurances"). These Assurances in favor of the Klamath Reclamation Project, once effective, are permanent regardless of: (a) whether federal appropriations are provided for anticipated fishery restoration and reintroduction programs; (b) the success or failure of anticipated fishery restoration and water quality improvement efforts; (c) future effects of climate change, or other environmental conditions, on water quality and quantity in the Klamath River; (d) the future fishery harvest needs of the Hoopa Valley Tribe; or (e) other unknown or unforeseeable events.

The Assurances in the KBRA effectively terminate the United States' fiduciary obligation to the Hoopa Valley Tribe by permanently subordinating the Tribe's senior water and fishing rights in the Klamath River to junior non-Indian irrigation interests in the Upper Klamath Basin, regardless of future impacts on tribal trust resources, and without the consent or approval of the Hoopa Valley Tribe. The Assurances become permanent if the Klamath dam facilities are removed pursuant to an Affirmative Secretarial Determination.

Although this issue has been a highly publicized area of controversy, the Draft EIS fails to mention it. Section 3.12 purports to discuss impacts on tribal trust resources. Yet, that section says nothing about the fact that the United States, in the KBRA, has agreed to subordinate tribal water rights to junior irrigation interests. Section 3.12 asserts that the Hoopa Valley Tribe will be eligible for KBRA funding "upon becoming a party" but fails to mention that the Tribe would be required to enact claim waivers and take other acts inconsistent with its trust resources in order to obtain those "benefits." The DEIS fails to mention that the Tribal Council of the Hoopa Valley Tribe enacted a resolution in February 2010 that finds in relevant part:

> WHEREAS: The Assurances in the *Klamath Basin Restoration Agreement* effectively terminate the United States' fiduciary obligation to the Hoopa Valley Tribe by permanently subordinating the Hoopa Valley Tribe's senior water and fishing rights in the Klamath River to junior non-Indian irrigation interests in the Upper Klamath Basin, regardless of future impacts on tribal trust resources, and without the consent or approval of the Hoopa Valley Tribe; and

> WHEREAS: The Assurances in the *Klamath Basin Restoration Agreement* conflict with the National Congress of American Indians (NCAI) Resolution #PSP-09-051 (October 2009), and Affiliated Tribes of Northwest Indians (ATNI) Resolution #09-63 (September 2009) in which the NCAI and ATNI each resolved to oppose "any policy of the United States to terminate the rights of, or impose adverse consequences upon, a tribe that chooses to retain its water rights instead of settling on terms desired by the federal government"; and
>
> WHEREAS: The *Klamath Basin Restoration Agreement* requires the Hoopa Valley Tribe, as a condition of the Tribe's participation and receipt of funding and benefits in the Agreement, to relinquish and release claims against the United States relating to water management in the Klamath Basin and associated impacts on Hoopa Tribe water, fishing, and trust rights; and . . .
>
> WHEREAS: The *Klamath Basin Restoration Agreement* thus conflicts with tribal sovereignty, violates trust duties owed to the Hoopa Valley Tribe by the United States; subordinates tribal water and fishing rights in favor of junior non-Indian irrigation interests without tribal consent; provides inadequate flows for the protection of tribal trust resources; offers a speculative and unfunded program for fishery restoration and water conservation; encourages unsustainable use of groundwater in the Upper Klamath Basin; and is not based on the best available, peer reviewed science; and . . .
>
> NOW, THEREFORE BE IT RESOLVED: The Hoopa Valley Tribal Council, acting under its sovereign authority on behalf of the Hoopa Valley Tribe, hereby rejects, opposes, and disapproves of the *Klamath Basin Restoration Agreement* and the *Klamath Hydroelectric Settlement Agreement* . . . .

If the priority given by the KBRA to Klamath River surface diversions has the effect of preventing fish restoration (which is likely), the United States will not only be unable to protect Indian fishing rights under the terms of the KBRA, but it will be legally required to defend the irrigation interests against the tribes and trust resources. In other words, the United States would be enforcing the priority for water diversions even if that leaves too little water to restore the fish on which the Indian tribes rely. By contrast, under existing law "Reclamation is obligated to ensure that project operations not interfere with the Tribes' senior water rights. This is dictated by the doctrine of prior appropriation as well as Reclamation's trust responsibility to protect tribal trust resources. . . . Reclamation must, pursuant to its trust responsibility and consistent with its other legal obligations, prevent activities under its control that would adversely affect [the Tribes' fishing] rights." Memorandum of Regional Solicitor (July 25, 1995). The KBRA would preclude the trustee United States from preventing such adverse effects to tribal trust resources. The KBRA changes the tribal right (enforceable by the federal trustee) from a right to sufficient water to produce the fish on which the Tribes rely, into a right to water left over after diversion per Appendix E-1 of the KBRA, regardless of what the habitat results may be. The effect is thus similar to termination provisions such as the one for the Klamath Tribes of Oregon, which provided "statutes of the United States which affect Indians because of their status as Indians shall no longer be applicable to the members of the Tribes." 25 U.S.C. § 564q(a). The

KBRA will abridge the Government-to-Government relationship between the United States and the Hoopa Valley Tribe.

In the DEIS, the public and decision-makers learn nothing about the impacts on Hoopa Valley Tribe's trust rights and resources. The Executive Summary asserts that there are no impacts to tribal trust flowing from the Proposed Action. This is patently false. The DEIS simply accentuates the "positives" in order to promote the KBRA and KHSA in accordance with the interests of the Department, while setting aside the anticipated termination and subordination of tribal trust rights. This also implicates environmental justice impacts. The failure to properly and fully disclose the impacts to the Tribe's rights results in an unlawfully deficient EIS.

VII. Conclusion.

The Tribe supports dam removal; however, the linkage of dam removal to the KBRA will result in non-achievement of the desired fish restoration goals. Thus, the Tribe requests that the EIS evaluate alternatives that do not include execution and implementation of the KBRA. We thank you for your consideration to these comments. We will continue to work with the Department to achieve a solution that will protect the Trinity River, restore the Klamath fishery, remove the dams of the Klamath Hydroelectric Project, and preserve Hoopa water and fishing rights.

Sincerely,

HOOPA VALLEY TRIBAL COUNCIL

Leonard E. Masten, Jr., Chairman

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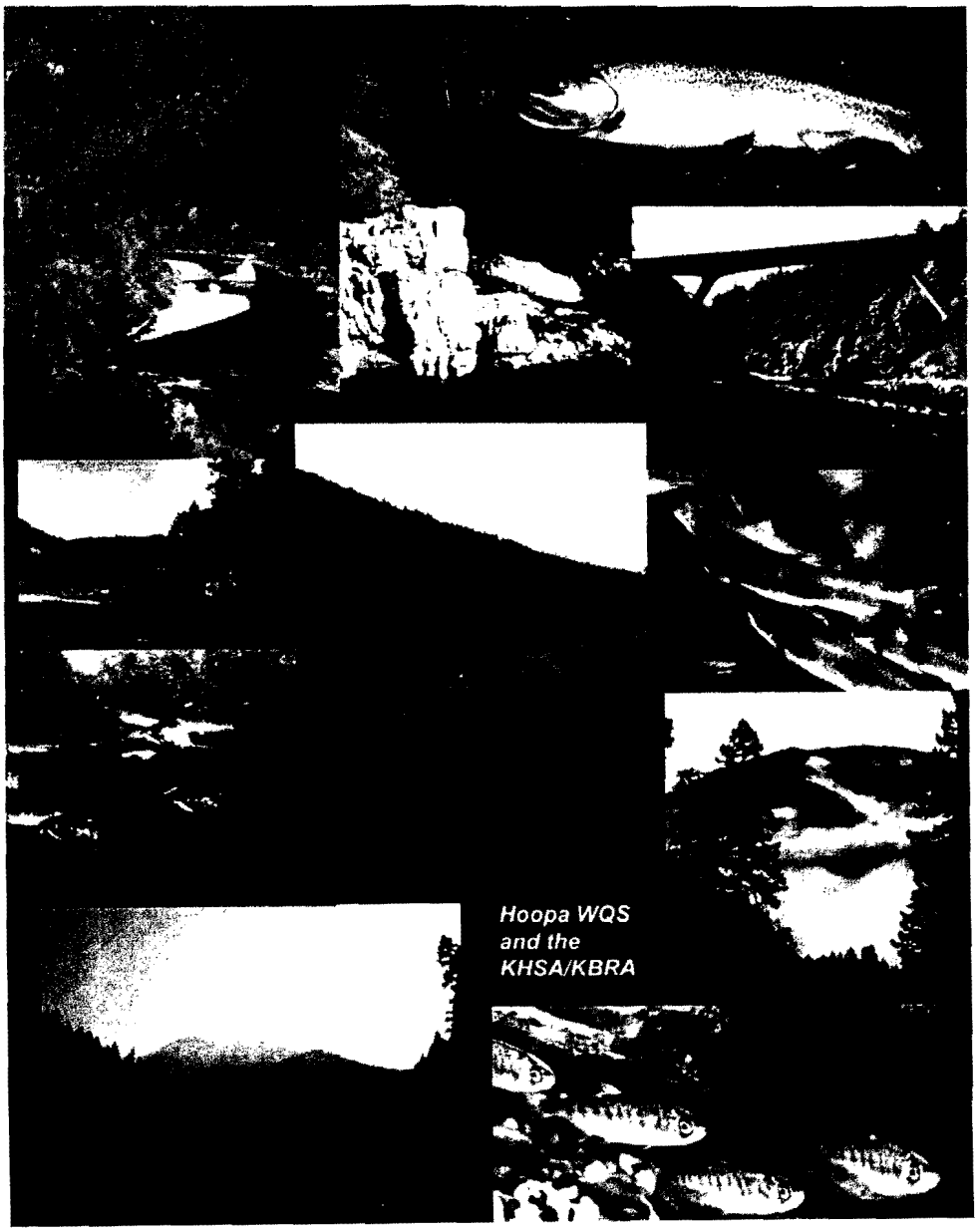
KHSA and KBRA Likelihood of Meeting Hoopa Valley Tribe Klamath River Water Quality Standards



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Prepared for:
Hoopa Tribal Environmental Quality Agency

October 6, 2011

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Foreword

The purpose of this report is to provide the following information for the Hoopa Tribal Environmental Protection Agency (TEPA) in response to their request:

- Provide a clear over view of whether water quality management under the Klamath Hydropower Settlement Agreement (KHSA) and Klamath Basin Restoration Agreement (KBRA will attain Hoopa Valley Tribe (2008) Klamath River Water Quality Standards (WQS),

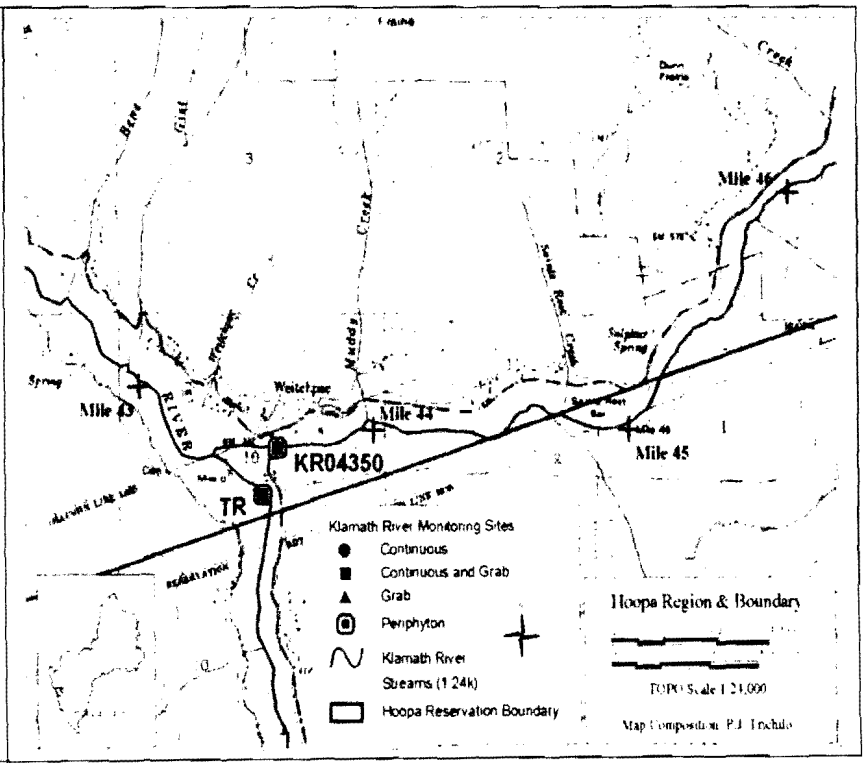
- Provide recommendations for exercising the Hoopa Valley Tribe's WQS authority under the KHSA/KBRA water quality management process, and

- Identify options other than the KHSA/KBRA for the Hoopa Valley Tribe that achieve dam removal.

These are section headers in the report below, but sections on the origin of the KHSA/KBRA and using ecological restoration to attain Hoopa WQS are also included.

The Hoopa Indian Reservation includes a segment of the mainstem Klamath River just upstream of its confluence with the Trinity River (Figure 1 at right).

Hoopa Valley Tribe water quality authority that allows them to create water quality standards (WQS) for the Klamath River is based on U.S. EPA (2002) approval.



Origin of the KHSA and KBRA

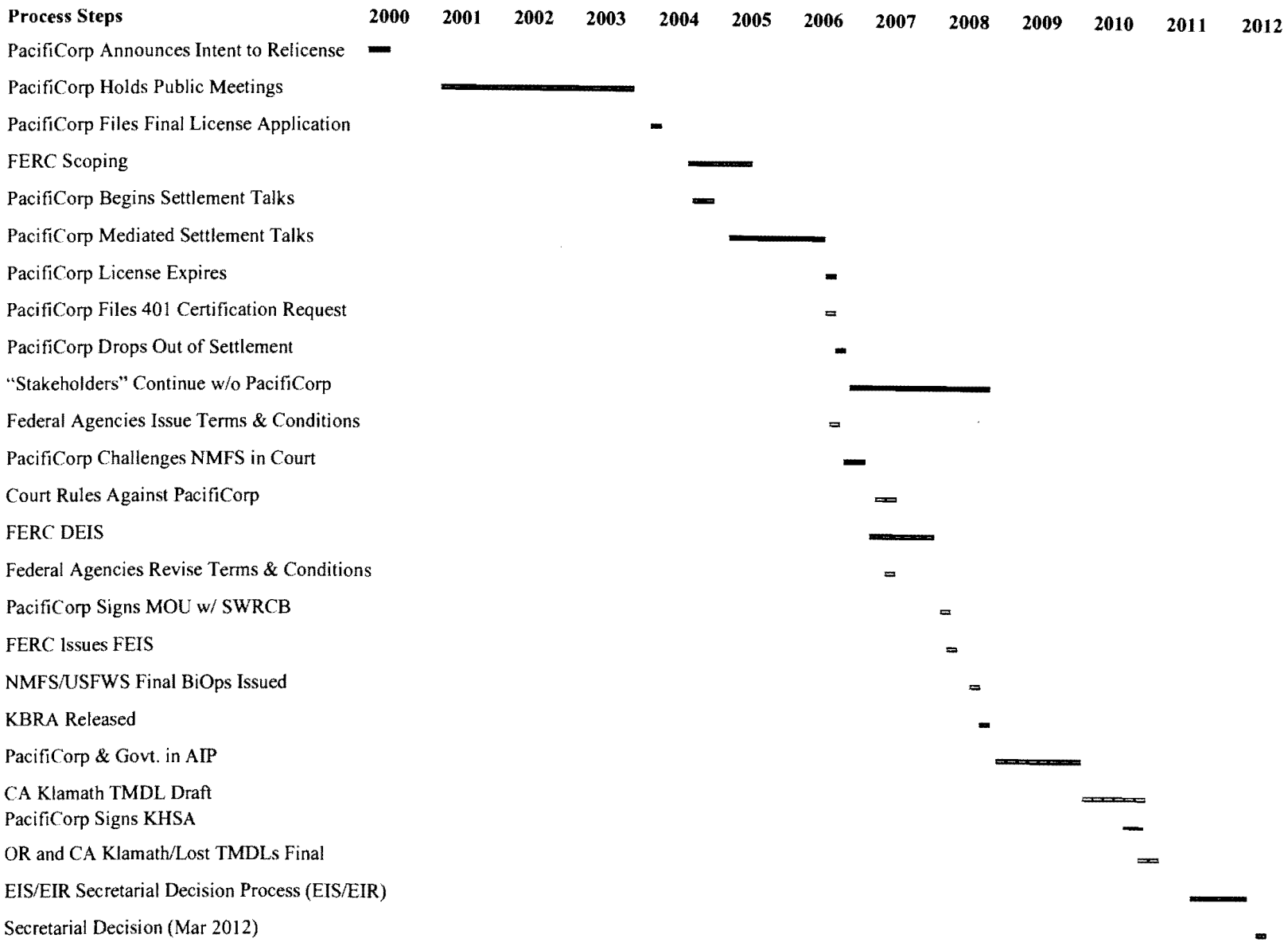
The KHSA is a negotiated settlement in lieu of following the Federal Energy Regulatory Commission (FERC, 2007) relicensing process for the Klamath Hydroelectric Project (KHP) (FERC #P-2082). The KHP is owned and operated by PacifiCorp and the company has pursued settlement because the outlook of their relicensing process did not look favorable (Brockbank 2010). The deposition of PacifiCorp Executive Vice President Dean Brockbank (2010) supplies much of the information in this section about the chronology of settlement talks (see also Alternatives for KHP Dam Removal).

PacifiCorp first announced its intention to relicense the KHP in December 2000 and held a series of public meetings before filing its Final License Application in February 2004. Table 1 provides a time line that chronicles steps in relicensing, other processes that have bearing on relicensing (i.e., 401 certification) and KHSA and KBRA development. Red highlights in the table indicate unfavorable components of relicensing of the KHP from PacifiCorp's perspective. In particular, PacifiCorp was apprehensive about obtaining necessary State water quality certification (SWRCB 2007) and the cost of fish passage facilities for Pacific salmon species mandated by the National Marine Fisheries Service (NMFS 2006).

PacifiCorp began informal settlement talks in October 2004 that became a "mediated" settlement in January 2005. The settlement process took over five years to complete and ironically PacifiCorp dropped out of talks in mid-2006 as other "stakeholders" crafted the KBRA. The Energy Policy Act of 2005 (Public Law 109-58) allowed entry into settlement at any time within the licensing process for PacifiCorp. This new law also allowed PacifiCorp to challenge NMFS' authority to require KHP fish passage but their challenge was rejected by an administrative law judge (McKenna, 2006). PacifiCorp's KHP license expired on March 1, 2006 and FERC has been issuing 1 year extensions since. The company reengaged with state and federal agencies regarding potential decommissioning through an Agreement in Principal (AIP) in July 2008 (CA, OR, USDOI and PacifiCorp 2008) that was superseded by their signing the KHSA in February 2010. PacifiCorp is not a signatory to the KBRA, but all Parties signing the KBRA also signed the KHSA.

The creation of the KBRA involved dozens of meetings spanning several years, all behind closed doors with participants bound by a confidentiality agreement. Although the process involved several counties, Tribes, environmental organizations and government agencies, key participants were excluded from participation, including Del Norte County and the federally recognized Resighini Rancheria and the Quartz Valley Indian Reservation. The Hoopa Valley Tribe participated in the Settlement, but declined to sign the final KBRA or KHSA because they would require giving up water rights and the ability to take legal action to abate water quality problems to protect fisheries (KBRA 15.3.9). The KBRA and KHSA are arcane documents written by lawyers with tedious cross references and a myriad of contradictions. Ultimately important decisions regarding public trust and Indian Treaty Rights and Trust responsibilities are embodied in these documents that were made out of public view and excluded legitimate stakeholders.

Table 1. Time Line for Klamath Settlement Process



In April 2007 during the Settlement that preceded the KBRA, Klamath Project irrigators made an ultimatum with regard to their continuing participation; any Settlement would have to include farming in the Lease Lands of Tule Lake and Lower Klamath National Wildlife Refuges. Oregon Water Watch (OWW 2010) and Oregon Wild (OW) were expelled from Settlement talks because they would not agree to this condition. Talks continued without OWW and OW, but their expulsion sent a clear message and restricted subsequent consideration of viable ecological restoration options under the KBRA.

Although the KBRA is separate from the KHSA and deals with issues largely unrelated to KHP relicensing, the agreements are intertwined due to KBRA (7.2.1 C) and KHSA (8.1) "severability" clauses that state that neither can be implemented separately. Therefore, both the KHSA and KBRA are discussed below with regard prospects of meeting Hoopa TEPA (2008) WQS. The *Klamath River and Lost River Total Maximum Daily Load (TMDL)* (NCRWQCB 2010) and *Upper Klamath and Lost River TMDL and Water Quality Management Plan* (ODEQ 2010) are integral to improving water quality, so their potential to improve conditions is also considered.

KHSA and KBRA Actions Insufficient to Meet Hoopa TEPA WQS

The KHSA has to do with dam decommissioning and pollution associated with KHP operation while the KBRA would deal with fishery restoration and potential remediation of water quality problems. Both the KHSA and KBRA will require federal authorizing legislation, including $1 billion or more in funding. Legislation has not been passed. Pollution associated with KHP dam operation will continue under the KHSA until 2020, but there is also a question as to whether measures taken under the KBRA after dam removal will be sufficient to abate nutrient pollution and meet Hoopa TEPA (2008) WQS. Interim Measures to abate water quality problems under the KHSA are pertinent to the Klamath River TMDLs and are discussed in that section below. Table 2 lists beneficial uses recognized by the NCRWQCB (2007) *Basin Plan* and Hoopa TEPA (2008) and their likelihood of being met under the KBRA/KHSA before and after 2020.

Table 2. Likelihood of meeting Klamath River beneficial uses under the North Coast Basin Plan (NCRWQCB 2007) or Hoopa TEPA (2008) WQS before and after 2020 under the KBRA/KHSA. Green indicates beneficial uses are restored and red indicates that they are not.

Beneficial Use	Key	Before 2020	After 2020
COLD	Cold freshwater habitat		
SPAWN	Fish spawning		
MIGRATION	Fish migration		
RARE	ESA and CESA Fish		
COMM	Commercial & Sport Fishing		
FISH	Subsistence Fishing		
CUL	Cultural Use		
REC-1	Recreational Contact		
REC-2	Recreational Boating		

KHSA

The KHSA does not directly call for KHP dam removal but rather sets up a March 2012 Secretary of Interior Decision as to whether decommissioning is in the public interest and will benefit the environment, including Klamath River native fish species. A major effect of the KHSA is to delay the 401 processes of California (PacifiCorp 2008, SWRCB 2008) and Oregon that had the potential to force expeditious dam decommissioning (Brockbank 2010), if either State withheld certification. The serious nuisances caused by KHP reservoirs is justification for swift dam removal (SWRCB 2007), but instead under the KHSA the project will operate until 2020 on a year to year extension of its 1956 FERC license (Brockbank 2010). Numerous problems have been identified with regard to KHP operation that lead to major negative impacts on salmonids and other beneficial uses (Hoopa TEPA 2008), and to a large extent these cannot be mitigated without dam removal (SWRCB 2007, FERC 2007).

Fish Passage: Fish passage for anadromous species is considered as part of the COLD beneficial use according to the SWRCB (2007), and migration for Pacific salmon species (MIGR) will continue to be blocked until at least 2020 under the KHSA and KBRA (see Alternatives for Dam Removal). Coho salmon that are affected by the KHP are listed as Threatened under the federal Endangered Species Act (ESA); therefore, the RARE beneficial use is also compromised. The impediment to migration also continues to compromise the commercial and sport fishing beneficial use (COMM) and tribal subsistence fisheries (FISH).

Thermal Problems Created by Iron Gate Reservoir: The mass of water within Iron Gate Reservoir creates thermal problems that delay Chinook salmon spawning (SPAWN) in fall and impair juvenile rearing conditions (COLD) in spring. This will continue until drawdown of the reservoir or Iron Gate Dam removal. Klamath River fall temperatures remain above suitable for spawning three weeks later than if the river were free flowing (Figure 4). The KBRA Chinook Expert Panel (Goodman et al. 2011) noted high "pre-spawning mortality documented in the mainstem river may be related to high water temperature and moderately low dissolved oxygen", which are both side effects of reservoir operation. Increased fall water temperatures and associated stress are also likely to reduce fecundity. Fry from eggs laid later in the season emerge later in spring and their growth is then suppressed by artificially depressed Klamath River temperatures. Smaller fry migrate more slowly as the Klamath River water temperature rises and water quality becomes adverse. With their resistance compromised by water quality related stress, these fish also face much greater exposure to the disease organisms (see below). The thermal lag at Iron Gate appears to have shifted spawn timing of fall Chinook later and the losses of juveniles are sometimes in the hundreds of thousands (USFW 2001, Nicholas and Foott 2005). While temperature effects of Iron Gate Reservoir do not extend downstream to the Hoopa Reservation, maintaining Iron Gate Dam through 2020 leads to unacceptably high risk to the Klamath River fall Chinook population. Continued depressed Chinook populations blocks attainment of commercial and sport fishing (COMM) and tribal subsistence fishing (FISH) beneficial uses.

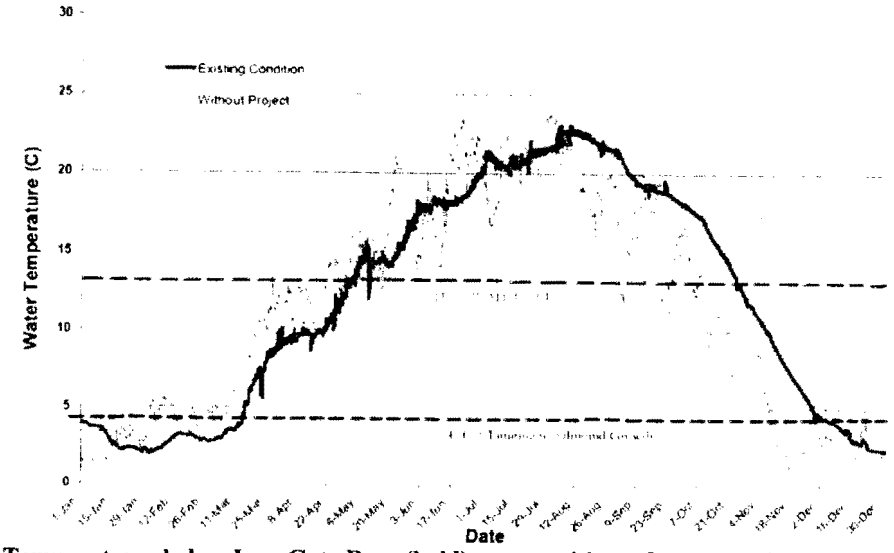


Figure 2. Temperatures below Iron Gate Dam (bold) versus without dam scenario (grey). Warmer fall temperatures create a three week lag for suitability of spawn timing and rearing temperatures remain below optimal for a month. Reference thresholds from U.S. EPA (2003).

Fish Disease Cycles: One of the main impediments to restoring COLD, COMM, RARE and FISH beneficial uses of Pacific salmon in the Klamath River, particularly Chinook salmon and coho salmon, is the extremely high prevalence of disease organisms below Iron Gate Dam (Foott et al. 2003, Stocking and Bartholomew 2004, Nichols and Foott 2005, Nichols and True 2007, Nichols et al. 2008, Bartholomew 2008, Stocking et al 2006, Stone et al. 2007). Two myxozoan disease organisms, *Ceratomyxa shasta and Parvicapsula minibicornis*, are endemic to the Klamath River and the Pacific salmon species have co-evolved with them and have developed substantial resistance. However, nutrient enrichment from the Upper Klamath Basin and from within Iron Gate Reservoir sets up conditions that cause extraordinarily high production of disease organisms that can overwhelm otherwise healthy fish (Nichols and Foott 2005).

The green algae species *Cladophora* is recognized as an indicator of nutrient pollution and there are areas below Iron Gate Dame where this species is dominant (Stocking et al. 2006). A polychaete worm, *Manayunkia speciosa*, which thrives in Cladophora beds also serves as an intermediate host for the deadly diseases. Fall Chinook spawning is concentrated below Iron Gate Dam and adults carry myxospores that cause a vicious cycle as *M. speciosa* captures them and then releases actinospores when Chinook juveniles are migrating downstream (Stocking et al. 2006, Bartholomew 2008). Stocking et al. (2006) concluded that actinospores remain viable during the 5 days required for water to pass from Iron Gate Dam to the Klamath estuary. Therefore, it is likely that disease problems will continue for fish migrating through the Hoopa Reservation portions of the Klamath River until at least 2020. Disease effects can extend downstream of the Trinity River and there indications of major impacts to juvenile Chinook from that river (Figure 3); therefore, Hoopa Valley Tribe Trinity River fish harvest is also directly impacted.

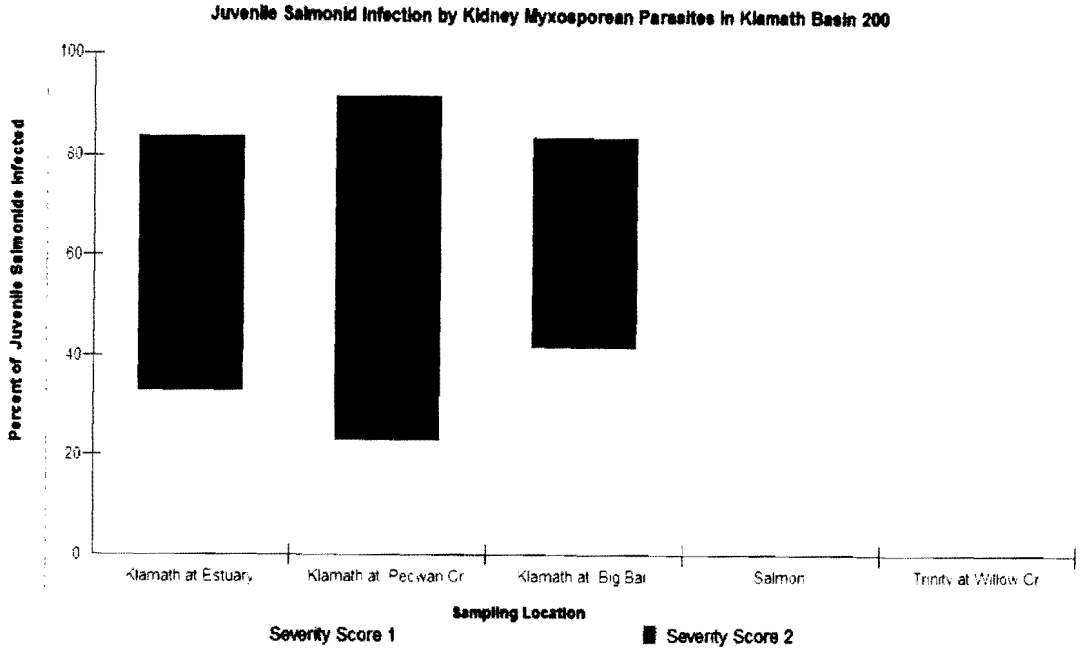


Figure 3. Chart shows the percentage of juvenile salmonids infected by kidney myxosporean parasites. High severity (2) score indicates likely mortality. While Trinity River infection is low, Pecwan and estuary high disease incidence suggests Trinity fish are becoming infected. Most of the juvenile salmonids sampled were Chinook salmon. Data from Foott et al. (2003).

Water Quality Stress: Fish susceptibility to disease is a function of cumulative stress caused by multiple water quality factors (Hoopa TEPA 2008). In addition to temperature, impairment below Iron Gate Dam can include elevated pH, algal toxins and dissolved ammonia as well as depressed dissolved oxygen (D.O.), all of which are linked to KHP dam operation (SWRCB 2007, FERC 2007). These conditions will continue to cause impairment until at least 2020 as a result of KHP operation and lack of attainment of the COLD, FISH, COMM, and RARE beneficial uses. The manifestation of nutrient pollution and associated problems for fish health may remain after dam removal, but that prospect is more fully explored under the KBRA section below.

Toxic Algae: Kann (2006) found the toxic algae species *Microcystis aeruginosa* to be prevalent within Copco and Iron Gate reservoirs but in low abundance or absent from the outlet of Upper Klamath Lake to below J.C. Boyle Reservoir within the Klamath Project. The SWRCB (2007) points out that there is little chance for remediation of toxic algae in the lower two KHP reservoirs before 2020; therefore, NCRWQCB (2011) staff do not recommend PacifiCorp carry out Interim Measures within the reservoirs aimed at treating algae problems (see TMDL discussion).

Kann and Corum (2009) found evidence of *Microcystis* downstream at Orleans and samples from the Yurok Reservation indicate it is present downstream to the estuary (Yurok 2009). Kann (2008) also reported bioaccumulation of microcystin toxin in Iron Gate Hatchery Chinook salmon juveniles. Yellow perch from Copco and Iron Gate

Reservoirs and mussels downstream of the KHP had such high levels due to bioaccumulation that they would pose a human health risk, if consumed. Emerging epidemiological evidence suggests that the substance BMAA (beta-methylamino-L-alanine) that is prevalent in toxic blue-green algae species may be linked to neurological disorders, such as Amyotrophic Lateral Sclerosis (ALS) (Lou Gehrig's disease), Parkinson's disease and Alzheimer's disease (Caller et al. 2009). Impairment of Hoopa Reservation waters on the Klamath River from toxic algae will continue through at least 2020 with the recreational (REC-1) beneficial use compromised and ceremonial use (CUL) in certain seasons inadvisable.

Keno Reservoir Operation: The KHSA (7.5.4, 7.5.5) stipulates that the U.S. Bureau of Reclamation (BOR) will assume ownership of the Keno Reservoir and will continue to operate it in the same way that PacifiCorp has since 1968. Keno Reservoir has major problems with seasonal anoxia (Deas and Vaughn 2006, Sullivan et al. 2009, 2010) and riparian marsh restoration needed to combat this problem will, therefore, be prevented. Historically a lava bedrock sill at the location of Keno Dam caused the Klamath River to back up and form a vast connected wetland with Lower Klamath Lake. Diking off of wetlands and farming up to the margin of the reservoir has disrupted river processes that could otherwise assist with nutrient processing and reduction, similar to the findings of Bernot and Dodds (2005). Dredging of the reservoir to increase water storage capacity circa 1968 likely contributed to a decreased ability for ecological function and an increased propensity for anoxia.

Goodman et al. (2011) call attention to persistent problems of prolonged anoxia in Keno Reservoir (Figure 4) that they believe will not be alleviated under the KBRA. Figure 5 shows a map from PacifiCorp (2004) of riparian vegetation of the Keno Reservoir just above Keno Dam and Figure 6 is an aerial photo of the same area showing the pattern of land use. Continuing this land use and pattern of operation of Keno Reservoir under the KHSA will prevent improved ecosystem function by riparian marshes that could otherwise assist with clean up of nutrient pollution (Lytle 2000, Mayer 2005).

The ODEQ (2010) TMDL found that the suspended load from Upper Klamath Lake is a major driver of anoxia in Keno Reservoir; however, they also found the waste load from the Straits Drain to be a major source of pollution. ODEQ (2010) provided a schematic of flow diversions from the Klamath River and flow contributions to Keno Reservoir (Figure 7). Waste water from the Klamath Straits Drain in August 2002 constituted 48% of flows to the reservoir, which is similar to NRC (2004) findings. The Lost River and Tule Lake were originally a sink and did not discharge into the Klamath River; therefore, the high level of nutrients contributed by them today help push the river past the tipping point where ecosystem processes are insufficient for the river to clean itself. This results not only in anoxia within the Keno Reservoir but also in very adverse water quality impacts in the lower Klamath River.

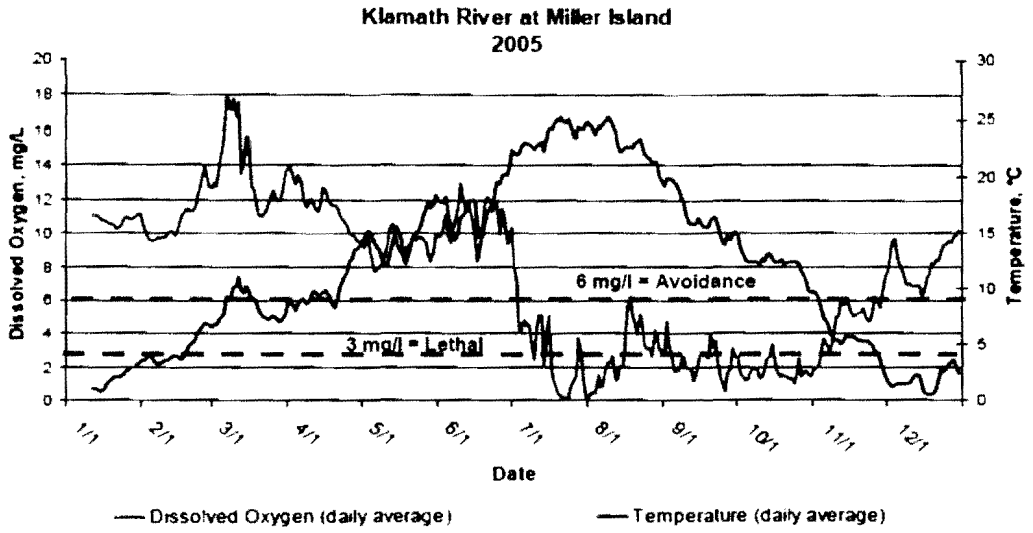


Figure 4. This chart shows fluctuations of water temperature and dissolved oxygen in Keno Reservoir in 2005 with lethal levels extending from July through October. Taken from Goode et al. 2011 where it appears as Figure 4. Threshold reference annotations added based on WDOE (2002).

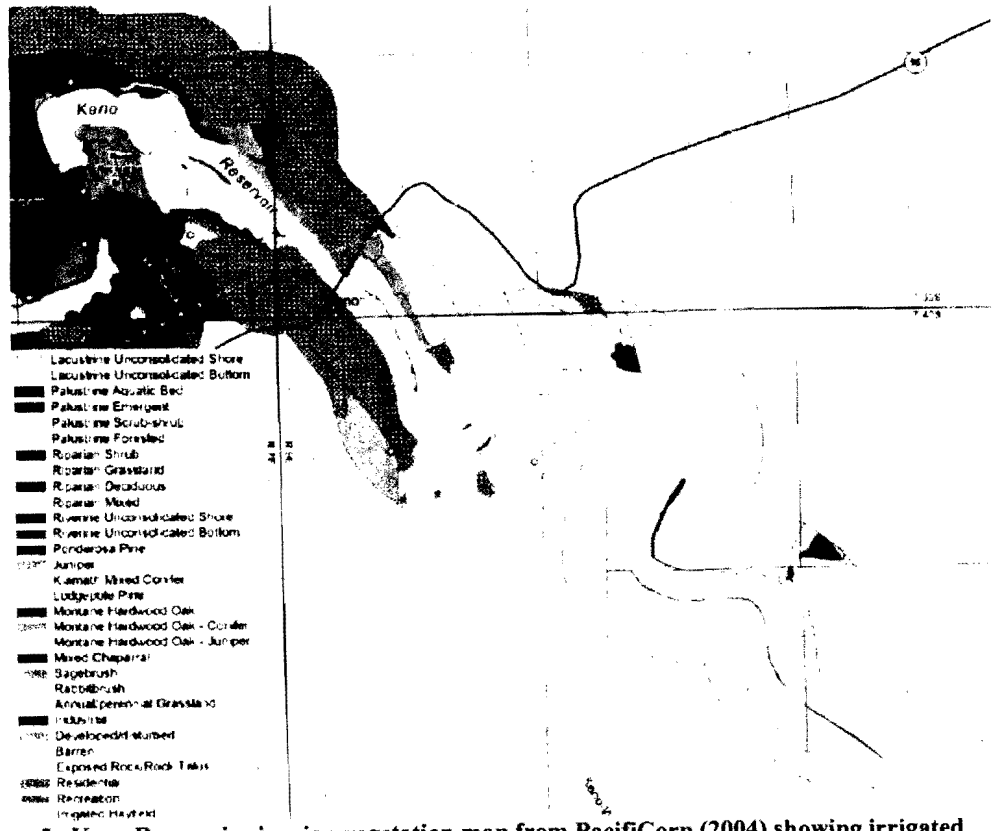


Figure 5. Keno Reservoir riparian vegetation map from PacifiCorp (2004) showing irrigated hayfields right up to the margin with no marsh buffer to help absorb nutrients and to provide other ecosystem services.

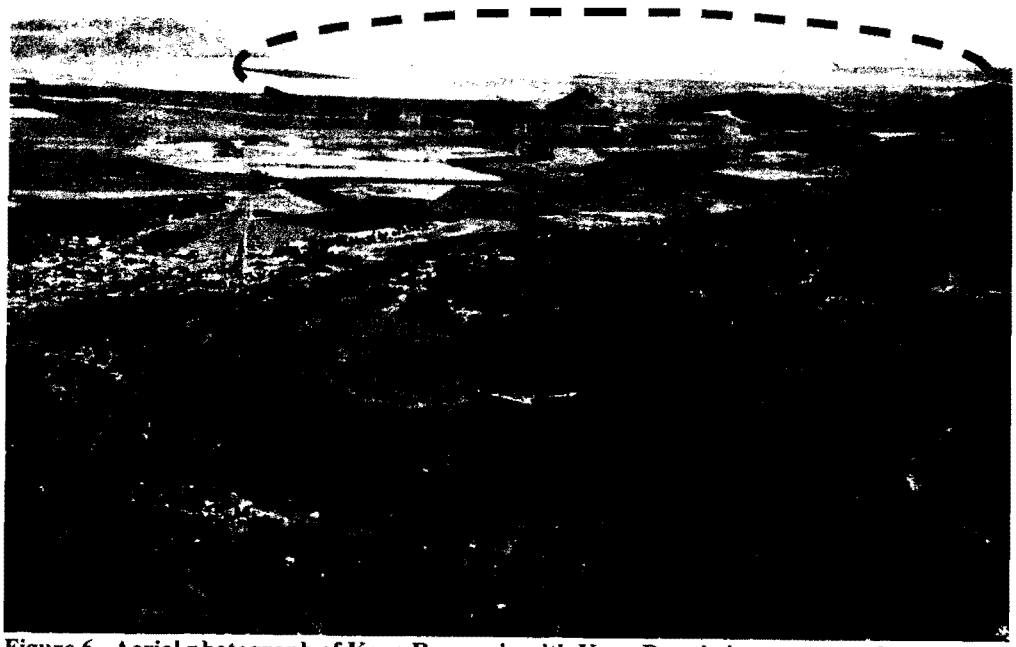


Figure 6. Aerial photograph of Keno Reservoir with Keno Dam below center and the old Lower Klamath Lake bed in the distance (red oval).

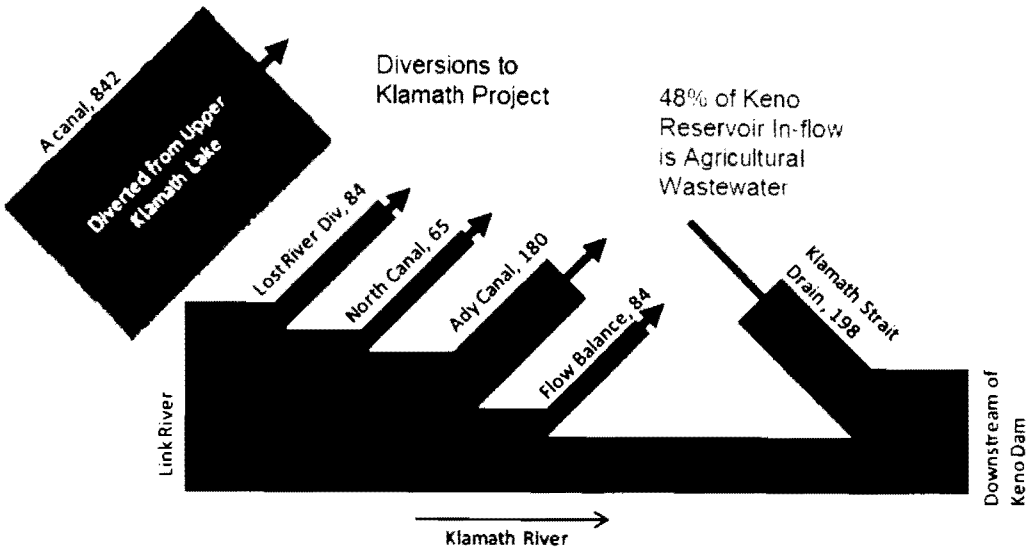


Figure 7. Average daily flow in August 2002 into the Klamath Project and Keno Reservoir. From ODEQ (2010) where it appears as Figure 2-21.

Agricultural discharges from the Lost River through the Lost River Diversion (LRD) canal are known to occur in winter (Deas and Vaughn 2006); however, ODEQ (2010) also found substantial nutrient contributions from that source in summer and fall of 2000 and 2008. ODEQ (2010) model runs of D.O. depletion in Keno Reservoir (Figure 9) show that the contributions from the LRD in September and October 2008 had substantial impacts in addition to discharges from the Klamath Project through the Straits Drain.

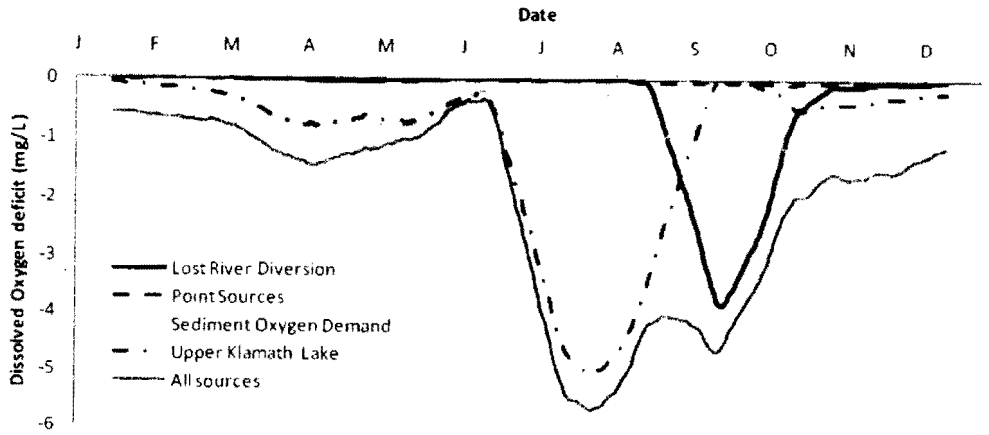


Figure 8. This chart is taken from ODEQ (2010) and shows model results of the D.O. deficits in Keno Reservoir by month in 2008 with a substantial contribution from the LRD Canal in fall, which likely extended conditions lethal to salmonids for two months.

KBRA

The KBRA does not have a water quality plan and has a very broad and ill defined strategy for clean up of nutrient pollution in the Upper Klamath Basin (Dunne et al. 2011, Goodman et al. 2011). Flows under the KBRA (Appendix E-5) will drop further from historic norms (Dunne et al. 2011), which will cause water pollution and fish health problems to persist or even worsen (Goodman et al. 2011). Lost River surface flows are likely to also be reduced under the KBRA resulting in direct impacts to ESA listed suckers and increased nutrient concentrations in waste discharges sent to the Keno Reservoir. The greatest KBRA effect on water quality, however, is that it guarantees continued agricultural land use over vast areas, including sites critically needed for ecological restoration. Major subsidy for maintaining low cost power for Upper Basin water users is also part of the KBRA, when the footprint of agriculture might otherwise shrink due lack of profitability (Jaeger 2004) helping to lower water demand and nutrient pollution.

Klamath River KBRA Flows to Increase Water Quality Problems: The KBRA convened Expert Panels (Dunne et al. 2011, Goodman et al. 2011) to judge the sufficiency of action in restoring conditions favorable for different fish species in the Klamath Basin. The Coho Salmon and Steelhead Expert Panel (Dunne et al. 2011) expressed concern that there would be no consideration under the KBRA of trying to restore historic flows in the Klamath River. Before the Klamath Project was created, Lower Klamath Lake (LKL) would fill in winter and then augment Klamath River flows from May through July (Weddell 2000). Dunne et al. (2011) charted flows before and after Klamath Project construction to show the departure from historical patterns (Figure 9). A return to historic flows would reduce water temperature and nutrient concentrations, which in turn would reduce algae blooms and fish diseases. Figure 9 is annotated to show where departures from the natural flow regime of the Klamath River since the construction of the Klamath Project increase water temperatures and water quality problems as well as

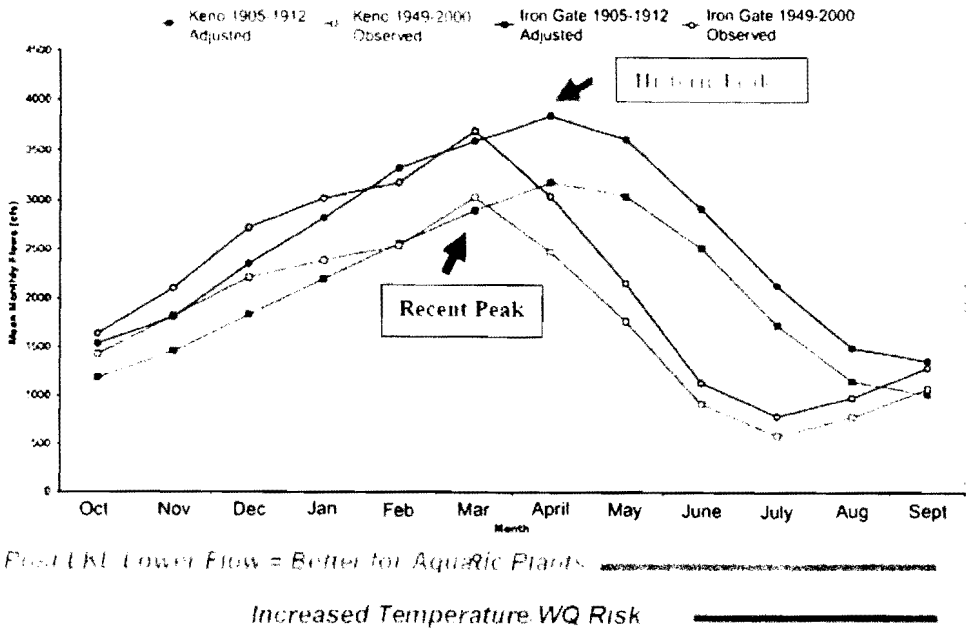


Figure 9. Chart of historic seasonal flows versus those after the construction of the Klamath Project and the disconnection of Lower Klamath Lake. Annotations include historic and recent peaks as well as periods likely to increase algal growth, temperature and nutrient pollution (WQ) added. Taken from Dunne et al. (2011) where it occurs as Figure 3.

promoting conditions that favor growth of algae beds. Continued agricultural activity in the Lower Klamath National Wildlife Refuge (LKNWR) under the KBRA forecloses the option of refilling the lake and increasing spring and early summer flows; instead KBRA flows will depart even further from historic norms.

Flows under the KBRA will be less than those called for under the Klamath Project operations NMFS (2010) Biological Opinion (B.O.) for coho salmon and Hardy et al. (2006). Figure 10 shows Klamath River flows at Iron Gate Dam for the 90% exceedance (very dry) water year with the KBRA WRMS R32 model run, the NMFS (2010) Biological Opinion (B.O.) flows and minimums recommended in the Hardy et al. (2006) Phase II study (Hoopa Tribe Fisheries Department 2011). Annotations once again show periods when very low flow conditions will foster increased algae growth and trigger more adverse water quality. Algae build up has the potential to be most injurious during prolonged droughts when there is insufficient water for flushing flow releases in spring.

Table 3 captures KBRA model (Appendix E-5) projections for Klamath River flows at the location of Iron Gate Dam Flows during extreme drought years similar to 1992 and 1994. Flows could fall as low as 442 cubic feet per second (cfs) (Figure 11) while the adult salmon kill of September 2002 was triggered by flows of 758 cfs (Guillen 2003, CDFG 2003). Reduced flow decreases the volume of water which in turn increases water temperature and nutrient concentration. Although the KBRA states that the Drought Plan would define higher flows for fish needs, the draft Drought Plan circulated in May 2011 does not have alternative levels to those in Appendix E-5 (Resighini Rancheria 2011a).

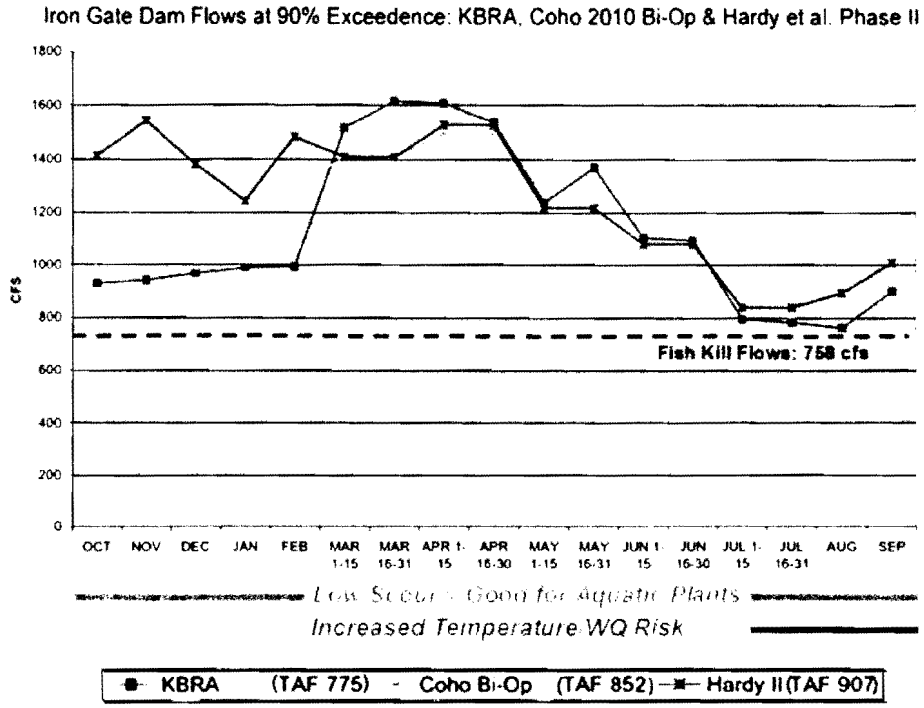


Figure 10. Flows at Iron Gate Dam in a 90% exceedance flow year comparing the KBRA WMRS R32 model flows, NMFS (2010) BO flow levels and Hardy et al. (2006) Phase II. Data from the Hoopa Fisheries Department. Reference is USGS Iron Gate September 2002 fish kill flow release.

Table 3. KBRA WRMS model flow simulations at Iron Gate Dam for years similar to 1992 and 1994 under KBRA flow allocations. R32 = primary run. R33 = with additional storage. R34 = with additional storage and climate change. Yellow indicates lower than September 2002 fish kill flows (758 cfs).

Period	R32_1992	R32_1994	R33_1992	R33_1995	R34_1992	R34_1994
Jan	854	959	819	1106	846	1106
Feb	809	928	800	1025	809	1025
Mar_1_15	1022	1239	800	996	800	996
Mar16_31	1021	1151	800	860	826	924
Apr_1_15	1063	1184	800	824	786	847
Apr_16_31	1022	1125	800	821	767	813
May_1_15	807	924	800	813	701	798
May_16_31	843	1069	800	812	668	823
Jun_1_15	698	913	800	811	581	773
Jun16_30	646	873	800	809	610	753
Jul_1_15	509	629	700	706	515	607
July15_30	524	574	700	705	537	561
August	442	485	800	804	533	548
Sept	512	577	800	808	519	552
Oct	549	582	800	811	800	811
Nov	647	690	829	800	829	800
Dec	774	762	914	800	914	800

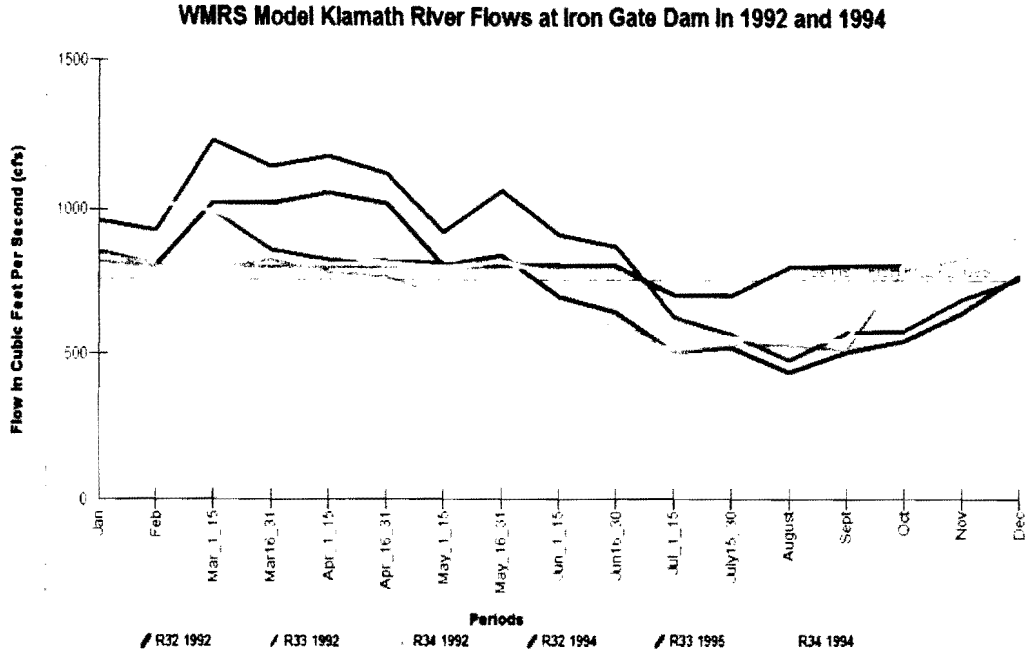


Figure 11. KBRA WRMS model run for flows at the location of Iron Gate Dam in years of Extreme Drought, with similar Upper Klamath Lake in-flow to 1992 and 1994. Data from KBRA (E-5, Tables 2, 4, 6).

Moving flows further away from their historic range of variability poses greater risk due to processes described in the FERC (2007) Final Environmental Impact Statement (FEIS) for the KHP relicensing:

> "Over time, the overall limitations on water availability and dynamic hydrographs contribute to conditions that result in a channel that becomes stable and prone to other undesirable consequences to water quality and aquatic resources."

Although nutrient concentrations are reduced by greater water volume (Asarian et al. 2010), the KBRA (Section 25.1.4) states that increasing flows will be the last option for improving water quality:

> "The Parties shall support all reasonably available alternative or additional water quality measures before considering any action for the purpose of water quality compliance that would reduce water supplies beyond the limitations provided in this Agreement."

Restricted Klamath River flows under the KBRA in and of themselves substantially lower chances of attaining Hoopa TEPA (2008) WQS, especially during drought or extreme drought years even after dams are removed.

Lost River Flow Reduction Impacts Under KBRA: The KBRA will likely reduce surface flows in the Lost River, which will have a direct impact on Lost River and shortnose suckers but will also increase nutrient concentrations in Straits Drain and LRD waste water sent to Keno Reservoir. The KBRA provides substantial resources that allow irrigation districts to bind together and create an On-Project Plan for water and power. This publicly funded document may not undergo public review and yet it will govern Lost River flows for the life of the KBRA. Lost River surface and groundwater have been used to make up for Klamath River shortfalls since 2001 through the U.S. Bureau of Reclamation (BOR) water bank. According to USGS (2005) "Water bank activities have resulted in an approximately eight-fold increase in ground-water pumping in the vicinity of the Klamath Valley and Tule Lake sub-basins." Gannett et al. (2007) measured water table drops from 2001-2004 of greater than 15 feet in the lower Lost River in California and stated that this was likely reducing surface flows. California State agencies and Siskiyou County do not actively manage groundwater and are not likely to prevent future adverse Lost River drought impacts. Increased nutrient concentrations in tail waters sent to Keno reservoir will promote continuing acute water pollution there with radiating negative impacts downstream.

KBRA Nutrient Reduction Insufficient: The U.S. EPA (2000) notes that "restoration should reestablish in so far as possible the ecological integrity of degraded aquatic ecosystems." A restored system would meet the following criteria: "Its key ecosystem processes, such as nutrient cycles, succession, water levels and flow patterns, and the dynamics of sediment erosion and deposition, are functioning properly within the natural range of variability" (U.S. EPA 2000). As noted above, the KBRA will cause flows to depart further from their historic range of variability and the amount of functioning marsh and area of shallow lakes that formerly helped improve water quality will remain at just a fraction of their historic extent.

Dunne et al. (2011) pointed out that the KBRA has no assured strategy for reducing nutrient pollution (emphasis added):

> "Experience from other locations where eutrophication is a major problem suggests that, at a minimum, drastic reductions in loading from the watershed must accompany local amelioration. These reductions must account for the apparently high natural nutrient inputs from the local watersheds, and the unavoidable leakage occurring in watersheds heavily altered for urban and agricultural use. *Thus, it would be premature to conclude that any problems caused by these blooms, including low dissolved oxygen, will be substantially reduced by KBRA*" (p. 39).

Goodman et al. (2011) urge consideration of more extensive wetland and lake restoration to recover the Klamath River's limnological balance:

> "Evaluate reductions in irrigated agriculture for lands draining to UKL and the Lost River for their feasibility to reduce summer and fall nutrient additions from those waters. Consider managing the refuges to further emphasize their benefits

> for fish and wildlife, which can be in contrast to their agricultural objectives." (Page 12, Section 2.1)

Goodman et al. (2011) also express doubt that problems with extremely low D.O. in Keno Reservoir will be resolved by KHSA and KBRA measures and as result that "a fully self-sustaining run of Chinook salmon to the upper basin is unlikely" even with KHP dam removal.

Asarian et al. (2010) project that available nitrogen at the location of Iron Gate Dam after removal of KHP reservoirs will increase in the months of July through September by 45-58%. Asarian et al. (2010) note that nutrient assimilation of periphyton and macrophytes will increase in the Klamath River below the location of Iron Gate Dam in response to increased nitrogen availability and state that "These increased retention rates downstream would then partially offset the effects of increased Iron Gate load on nitrogen concentrations in reaches farther downstream." The problem is that the process of photosynthesis associated with assimilating a 50% increase in nitrogen will continue to cause water quality perturbations that create stressful conditions for salmonids and disease rates similar to those experienced in the recent past (Halstead 1997, USFWS 2001, Nichols and Foott 2005).

Goodman et al. (2011) acknowledged the potential significance of the increased nutrient load in the Lower Klamath River:

> "Releasing these excessive amounts of nutrients to the Klamath River in the absence of the four lower dams means that the river, versus the reservoirs, will process the nutrients, perhaps in the form of excessive *Cladophora* biomass or increased periphyton production down river. These changes could elevate pH, lower night time dissolved oxygen, and cause gas supersaturation during afternoons in local areas."

The FERC (2007) FEIS also poses the same hypothesis as Goodman et al. (2011) with regard to nutrient surpluses and fish disease risk:

> "Continued high nutrient levels in the Klamath River that create ideal colonization conditions for *Cladophora*, at sites with favored flow and substrate conditions, would enable the host polychaete to become reestablished, and *C. shasta* and *P. minibicornis* would likely continue to pose a serious threat to downstream salmon for the foreseeable future."

As pointed out in the Fish Disease Cycles section above, no matter where the new fish disease node is below Keno Reservoir after dam removal, actinospores will be viable and increase exposure to *C. shasta* and *P. minibicornis* downstream to the estuary even after dam removal. Thus, Hoopa TEPA (2008) WQS beneficial uses will not likely be met and the Hoopa Valley Tribe will also likely continue to suffer fisheries losses both at Klamath River and Trinity River fishing sites.

Reservoir reach to help improve water quality, the importance of which is discussed above.

Agricultural water supply from Upper Klamath Lake through the A Canal continually inoculates the Lost River and Tule Lake with *A. flos-aquae* and marsh complexes there need to be re-expanded to stifle its growth. Neither the U.S. EPA (2008) Lost River TMDL or the NCRWQCB (2010) Klamath and Lost River TMDL implementation recognize the need for these restored ecosystem functions and processes. The KBRA guarantees water delivery and continued agricultural use of the Lease Lands within the TLNWR (15.1.2 B i) and LKNWR (15.1.2 B i), which constitutes 21,000 acres (Figure 12) and is the only such arrangement on any wildlife refuge in the nation. Tule Lake was originally 110,000 acres whereas Tule Sump occupies between 10,000-14,000 acres and Lower Klamath Lake was 95,000 acres and is now only 4,000 to 7,000 acres depending on the water year (Figures 13-14). This essentially blocks ecological recovery of both areas; therefore, confounds successful abatement of pollution.

Dam removal will help ecosystem function of the Klamath River in the restored KHP reach, including elimination of toxic algae. However, the huge excess of nutrients from Keno Reservoir will continue to overwhelm the river's capacity for assimilation causing major algae blooms downstream. As noted above, this has consequences for fish diseases as well as exceedance of water quality standards. Lower Klamath River recovery also requires that flows and ecosystem function of the Shasta and Scott rivers also be restored, but conditions there have not improved since adoption of those TMDLs (Higgins 2011).

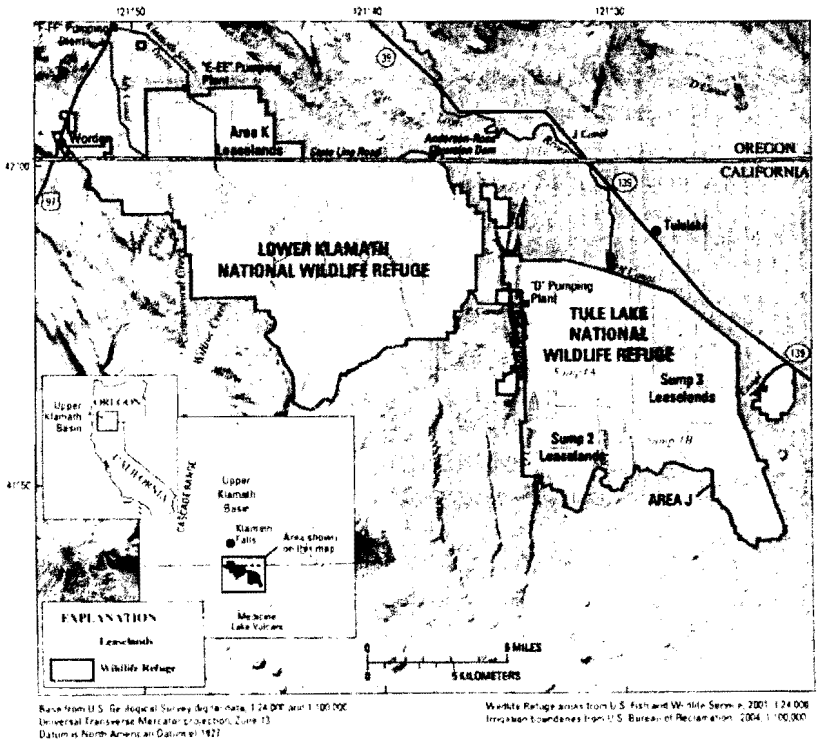


Figure 13. USFWS and BOR map of TLNWR and LKLNWR Lease Lands occupy 21,000 acres.

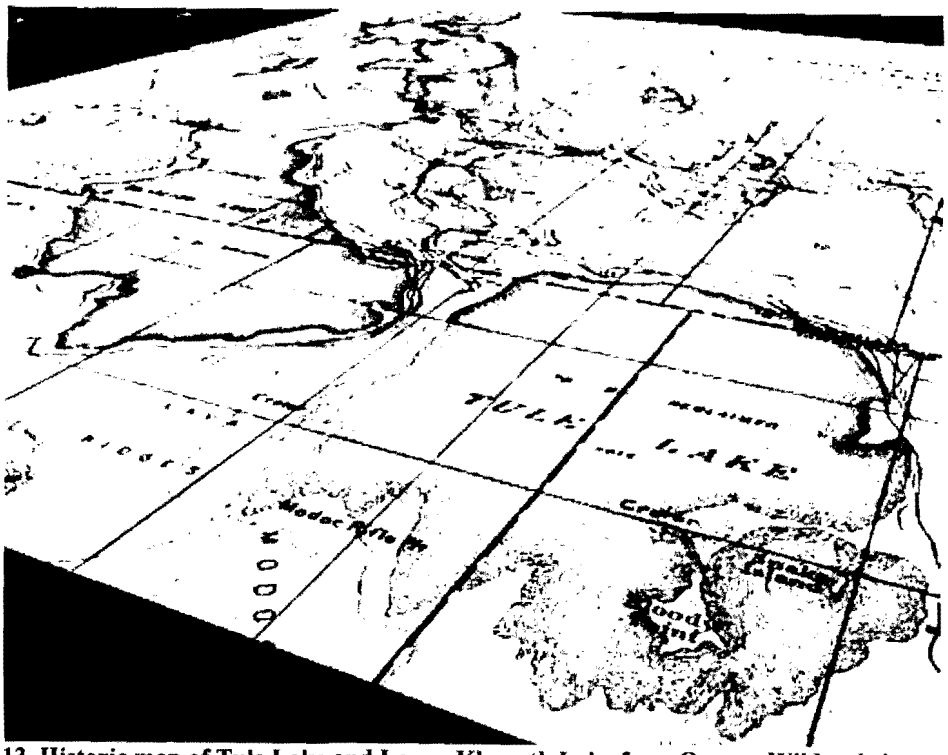


Figure 13. Historic map of Tule Lake and Lower Klamath Lake from Oregon Wild website at www.oregonwild.org/waters/klamath/klamath-photos-and-maps/interactive_maps

Figure 14. Aerial photo of Tule Lake and Lower Klamath Lake from Oregon Wild website.

The Tule Lake basin also has the highest use of pesticides in Siskiyou County (Figure 15) with up to 7,500 pounds per acre in use within the TLNWR on the Lease Lands.

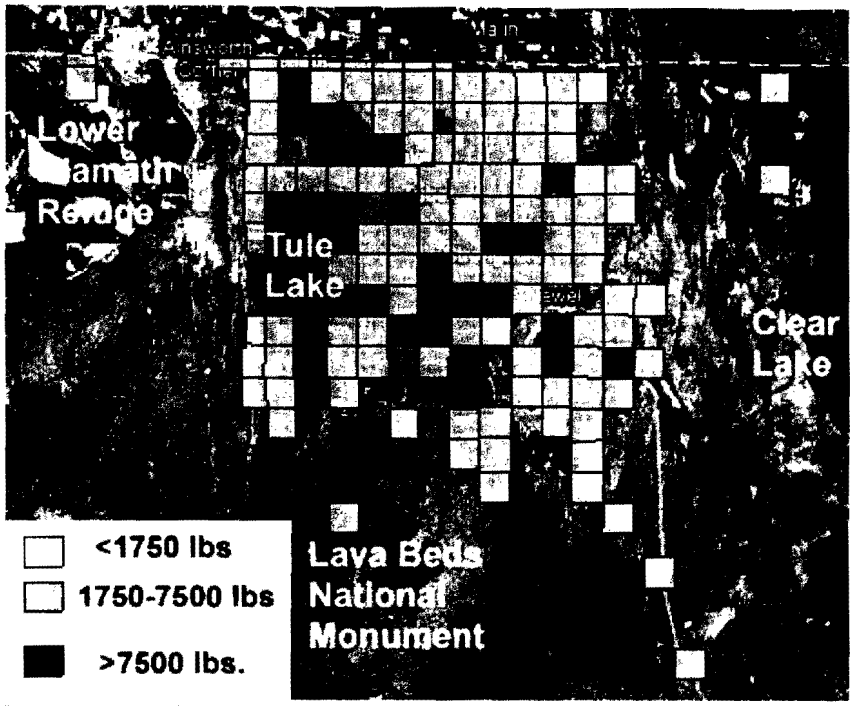


Figure 15. Tule Lake pesticides in pounds per year, including within the TLNWR Lease Lands adjacent to Tule Lake. Data from CA Department of Pesticide Regulation (DPR).

Recent studies have shown that even low levels of some chemicals can be injurious to coho salmon when acting together (Laetz et al. 2009). The KHSA and KBRA do not even mention the topic of pesticides but high contributions to the Keno Reservoir reach could be another factor that could impede Upper Basin salmon recovery. Laetz et al. (2009) found combinations of diazinon, malathion, chlorpyrifos, carbaryl and carbofuran in many Pacific Northwest rivers and exposing coho salmon juveniles to equivalent levels in a lab induced mortality. All of these chemicals are used in Siskiyou County where in 2007 an estimated 1,287,800 pounds of pesticides were applied to 187,595 acres, most of them within the Klamath Basin (CDPR 2008). Conversion to organic farming techniques needs to be pursued as part of any final settlement, especially on Lease Lands if farming there continues.

Technical Fix of Water Quality Problems is Experimental and Unlikely to Succeed

The NCRWQCB (2010) frames the strategy for nutrient pollution as follows:

> "Explore engineered treatment options such as treatment wetlands, algae harvesting, and package wastewater treatment systems to reduce nutrient loads to the Klamath River and encourage implementation of these options where feasible."

These technical approaches to nutrient pollution all require intensive capital investments for implementation and also have substantial on-going costs for electricity for water pumping or purification. It is very unlikely with the current budget crisis that funds will be available for construction and availability of capital for operation and maintenance in the future casts doubt on the ability of this approach to succeed. Furthermore, harvest of algae at the outlet of Upper Klamath Lake in perpetuity makes far less sense economically than abating algae blooms through ecological restoration. Similarly, operating a waste water treatment plant at the Keno Reservoir is not cost-competitive with reducing nutrient loads by eliminating farming on the TLNWR and LKNWR and expanding marshes to clean the water.

Meyer (2005) found that water passed through the LKNWR marsh complex had a 55-77% reduction in total nitrogen (N) and 19-51% reduction in total phosphorous with permanent wetlands having a much greater retention rate than seasonal wetlands. Lytle (2000) assessed the potential for use of a treatment wetland to reduce nutrient loads from the Klamath Straits Drain:

> "With an estimated wetland treatment area ranging between 1,633 and 3,114 acres, according to the Kadlec and Knight Model, the wetland could achieve a 61% reduction in total P concentration (0.41 to 0.16 mg/L) and a 90% reduction in total nitrogen including NH_3-N."

The problem with operation of such a treatment wetland is that it requires a flow rate of 70-130 cubic feet per second, which would require additional water storage. Thus, even operation of a treatment wetland at the Straits Drain would require expansion of Lower Klamath Lake or Tule Lake, both of which are blocked by the KBRA. The report from Lytle (2000) remains in draft and there has been no action with regard to its implementation.

TMDLs Rely on Voluntary Cooperation and Have No Timelines for Compliance

Both the California (NCRWQCB 2010) and the Oregon (ODEQ 2010) TMDLs are overly reliant on voluntary measures for compliance. TMDLs from both States lack any projections for when water quality compliance will occur or when beneficial uses will be fully restored. The Final KHP EIS (FERC 2007) expressed the following concern with regard to potential for success of TMDLs in the Upper Klamath to remediate pollution:

> "The TMDL program relies on voluntary involvement for loads identified from non-point sources; therefore, nutrient load reductions to the allocated size may not be fully realized as farmers and ranchers choose between converting portions of their land to best management practices or maximizing their property's agricultural potential." (3.3.2.3)

ODEQ (2010) states the TMDL "does not attempt a timeline addressing the many ongoing and voluntary efforts."

The prospect of enforcement in Oregon is more remote than in California because ODEQ (2010) must delegate authority for implementation to designated management agencies (DMAs). The lead DMA is the Oregon Department of Agriculture (ODA), which is charged with both promoting agriculture and regulation of agricultural activities that affect water quality. Other DMAs include the U.S. BOR and irrigation districts. A program that relies on polluters to oversee abatement of pollution has a very low likelihood of success.

Interim Measures for KHP Will Not Improve Reservoir or Lower Klamath River Water Quality Conditions

PacifiCorp has complied with Section 6.3.2 of the KHSA and submitted a TMDL implementation plan to the NCRWQCB. Appendix C and D of the KHSA lay out the 21 Interim Measures and they are reflected in PacifiCorp's (2011) *Plan for Implementing Management Strategies and Water Quality-Related Measures*. The NCRWQCB (2010b) response to the proposed measures states that in-reservoir actions will not abate nutrient pollution or toxic algae problems there. The PacifiCorp (2011) actions pursuant to TMDL implementation relevant to this report are as follows.

Interim Measure 2 requires that PacifiCorp provide $500,000 per year for coho salmon habitat restoration or acquisition, but these measures will have small water quality benefits and will target projects below the KHP. The improvement of cold water refugia at the mouths of Klamath River tributaries is very laudable and worthwhile, but it does not fully mitigate impacts of the operation of KHP dams as PacifiCorp (2011) claims: "The thermal refugia actions to be implemented under the Coho Enhancement Fund will mitigate the continuing effect of the reservoirs on water temperature during the interim period." This measure will help coho salmon, but the major impact to fall Chinook of reservoir operation described above will remain huge as long as Iron Gate Dam remains. Also, increased flows in the Shasta and Scott rivers is needed to restore coho salmon habitat there, which has much greater potential to increase carrying capacity for these fish (Higgins 2011)

Interim Measure 3 calls for turbine venting at Iron Gate Dam to improve dissolved oxygen (D.O.) levels that may improve lower Klamath River conditions within a short distance of the dam. Even if such measures were implemented, excess nutrients from the reservoir will continue to be released that stimulate profuse algae growth leading to D.O. sags stressful for salmonids downstream, when algae respires nocturnally.

Interim Measure 5 calls on PacifiCorp to consult with agencies and tribes and to carry out experiments with different flow levels in fall and early winter to benefit salmonids. In February 2011 5,000 cfs was released for one day under the theory that such a peak would increase scour and potentially reduce algae beds. These short term events are aimed at offsetting potential problems from low fall and winter flows planned under the KBRA as described above. No experimental design is in place, so whether this isolated action had any benefit is unknown.

Interim Measure 10 requires that PacifiCorp provide $100,000 to hold a conference "that focuses on the design and implementation of nutrient and organic matter reduction projects. The conference should assess the appropriateness and feasibility of various centralized pollutant removal technologies, including wetland treatment systems, wastewater treatment systems with energy recovery capabilities, aquatic plant harvesting, as well as agricultural best management practices" (NCRWQCB 2010). Planning for this event has been restricted to Parties to the KBRA and KHSA.

Interim Measure 11 is entitled Interim Water Quality Improvements, but there will be no significant improvements to Lower Klamath River that result. PacifiCorp is to spend $250,000 a year on one or more of the following: 1) developing a water quality accounting framework, 2) constructing pilot treatment wetlands for evaluation, 3) assessing in-reservoir water quality control techniques, and 4) improving J.C. Boyle D.O.

The NCRWQCB (2011) is asking that PacifiCorp increase resources to fully develop the water quality accounting framework that will help evaluate TMDL implementation, which is good. In lieu of reservoir projects, the NCRWQCB staff recommends pilot projects for nutrient reduction that could be expanded and implemented under the KBRA. While treatment wetlands have the potential to reduce nutrient contributions (Lytle 2000), they are unlikely to be able to offset continuing high contributions of nutrients (see Ecological Restoration).

The KHSA would set up an Interim Measures Implementation Committee (IMIC) to work with PacifiCorp comprised only of signatories or "Parties" to the settlements. The committee would also appoint and oversee a Fisheries Technical Working Group and a Water Quality Technical Working Group. These processes would prevent involvement of the Hoopa Tribe and other legitimate stakeholders who did not sign onto the KHSA and KBRA. The Hoopa Tribe has used government-to-government consultations and Freedom of Information Act requests to try to keep abreast of activities within the IMIC. Exclusion of the Hoopa Tribe and other non-Parties will lead to a continuing bias against any solutions to water quality problems that require more land retirement or higher flows than agreed to in the KBRA.

Sucker "Beneficial Use" Recovery Required by TMDLs Unlikely Under KBRA

Both the Lost River and shortnose suckers are endemic to the lower Lost River, Tule Lake and Lower Klamath Lake and they are, thus, both considered beneficial uses under the Clean Water Act and the Lost River TMDL (U.S. EPA 2008). Both species have been extirpated in Lower Klamath Lake (LKL)(USFWS 2001b). The NRC (2004) recommended consideration of refilling LKL to re-establish sucker populations to reduce regional extinction risk and to improve ecological function of the Klamath River. As noted above, this option is precluded by KBRA provisions that guarantee farming in the lake bed and the LKNWR Lease Lands. Therefore, this aspect of TMDL implementation is not likely to occur within the 50 year life of the program.

Shortnose suckers are no longer present in the lower Lost River (Delineas et al. 1996). Although there is an adult population of Lost River suckers in Tule Lake, there is no viable spawning habitat for them in the lower Lost River (Delineas et al. 1996, Shively et al. 2000). The source population for Tule Lake may be partially supplied by Upper Klamath Lake larvae entrained in the A Canal (Scoppettone et al. 1995), and colonists will likely decrease as fish screens are improved. Consequently, with no ability to reproduce and a diminishing source of colonists, the Tule Lake Lost River sucker population is also likely to be lost over time. Marsh and lake restoration in the lower Lost River, Tule Lake and LKL basins would not only allow re-establishment of sucker populations to lessen species extinction risk, it would help attain algae suppression and nutrient reduction that will likely prove elusive otherwise.

Ecological Restoration Approach to Restoring the Klamath River

An ecosystem based approach to resolving Klamath River water quality impairment is in keeping with current best-science principles: "Management of the freshwater habitat of Pacific salmon should focus on natural processes and variability rather than attempt to maintain or engineer a desired set of conditions through time" (Bisson et al. 2009). Major Upper Klamath Basin anthropogenic alteration and reengineering have overwhelmed ecosystem function and caused the Klamath River to develop acute water pollution. Ecosystem services that stifle algae blooms, absorb nutrients and provide water storage need to be regained, which will then allow Pacific salmon and sucker species recovery. The U.S. EPA (2000) gives similar guidance with regard to restoration:

- "Restoration strives for the greatest progress toward ecological integrity achievable within the current limits of the watershed, by using designs that favor the natural processes and communities that have sustained native ecosystems through time.

- Restoring the original site morphology and other physical attributes is essential to the success of other aspects of the project, such as improving water quality and bringing back native biota."

Despite naturally high phosphorous levels because of volcanic activity in its headwaters, the Klamath River was known as the "river of renewal" because of its ability to clean itself (NCRWQCB 2010). Marshes filtered run off, trapped nutrients and suppressed blue-green algae as described above. Lower Klamath Lake acted as the water storage system capturing winter flows and releasing them in late spring. The river bed itself, in a free-flowing condition, helped capture nitrogen from the water and release it back into the atmosphere similar to processes described by Sjodin et al. (1997). None of these ecological functions can be substituted for through technical fixes.

The Klamath River has passed its tipping point in terms of nutrient balance due to several changes:

- Changes within Upper Klamath Lake leading to A. flos-aquae domination,
- Blocking the connection to Lower Klamath Lake and drying it up,
- Pollution of the Lost River and Tule Lake and artificial connection to the Klamath River in the Keno Reservoir, and
- Keno Reservoir reach alteration that stopped denitrification and added to eutrophication.

The goal of ecological restoration as applied to the Klamath River is not to return the watershed to pristine conditions but rather to take strategic actions to restore the natural balance so that beneficial uses as defined by the Clean Water Act can be attained. If the natural system is restored to a level where its ecosystem processes clean the water, then it will be largely powered by gravity and far less expensive than technological fixes.

Studies are needed that go beyond those of Lytle (2000) and Mayer (2005) to determine quantitatively how strategic, large scale marsh and lake restoration would reduce water demand, increase water storage and resolve nutrient pollution as a result of improved ecosystem function. The current state of knowledge would suggest priorities include re-establishment of a marsh perimeter around Upper Klamath Lake, restoring the riparian marsh in the Keno Reservoir and in the lower Lost River, and expansion of Tule Lake and Lower Klamath Lake. The KBRA has hundreds of millions of dollars earmarked for restoration, which could be used for acquisition of wetlands for restoration. However, the obvious solution is to restore wetland and lake functions in TLNWR and LKNWR since there are 21,000 acres of wetlands there in public ownership. Costs of easements and acquisitions for areas in addition to the Lease Lands would be one time investments that lead to ecosystem function that has modest or no need for on-going maintenance.

Hoopa Valley Tribe Alternatives to KHSA/KBRA for Dam Removal

The two most promising avenues for promoting KHP dam removal are to return to the FERC relicensing process and by pressing for a speedy decision by the California SWRCB regarding 401 certification.

The Hoopa Valley Tribe challenged continuing operation of the KHP on a year to year basis without implementation of mitigation measures (HVT vs. FERC 2010). While the challenge was rejected (U.S. Court of Appeals District of Columbia 2010), trying to re-initiate the FERC licensing process should provide benefits with regard to promoting decommissioning. PacifiCorp felt imminent KHP decommissioning and loss of their power generating facility was a possibility under the relicensing process (Brockbank 2010):

> "Throughout these negotiations, the federal government and the states of Oregon and California have expressed a strong policy preference that PacifiCorp's dams on the Klamath River be removed."

If the KHP relicensing process re-opens, NMFS' (2006) fish passage requirements at dams will be part of terms and conditions. Administrative Law Judge Parlen McKenna

(2006) upheld NMFS authority and PacifiCorp (2008) estimates that fish passage at all KHP dams would cost $267 million, which is far more than project revenue justifies. This will likely throw the project into the "uneconomic" category. Brockbank (2010) explains PacifiCorp's options: "The applicant may accept the uneconomic license, decommission and remove the facility, or pursue litigation and challenge the mandatory conditions."

The California SWRCB (2008) suspended the 401 certification process after entering into an Agreement in Principal with PacifiCorp and subsequently signing the KHSA. The Hoopa Valley Tribe (2011a) pointed out that the most recent SWRCB Resolution (2010-0024), which held the KHP 401 process in abeyance, required federal KBRA/KHSA legislation be enacted by May 17, 2011, which it was not. Therefore, the SWRCB should re-start its 401 certification process. Oregon and northern California environmental groups (Cascadia Wildlands et al. 2011) and the Resighini Rancheria (2011d) also made similar requests to the SWRCB, which is likely to consider the matter at its August 2011 meeting.

If the relicensing and 401 process restart, the SWRCB will likely prevent FERC from issuing a new KHP license by withholding 401certification because water pollution problems associated KHP reservoirs cannot be remedied (SWRCB 2006). The inability of PacifiCorp to acquire a new license would also force abandonment and decommissioning.

Hoopa TEPA (2008) WQS for the Klamath River must be considered by the SWRCB in the 401 certification process. When the 401 process is reopened, the Hoopa Valley Tribe should continue to provide the SWRCB with evidence that shows the need for immediate removal of KHP dams due to toxic algae problems and alarming continuing impacts to salmon resources, particularly in drier years.

Conclusion

There is substantial concern that the lack of nutrient reduction at the source in the Upper Klamath Basin under the KBRA will cause a failure to remediate water quality problems even after dam removal (Dunne et al. 2011, Goodman et al. 2011). The chances that Hoopa WQS standards will be met appear low and all fisheries-related beneficial uses will continue to be compromised under the KBRA even after dams are removed. As noted above, a rigorous testing and reporting program to measure compliance with Hoopa WQS will be essential.

There is urgent need for action in promoting an ecologically sound restoration alternative. Current conditions have lead to a fish kill of 33,000-70,000 adult Chinook salmon (CDFG 2004) and the level of mortality of juvenile Chinook salmon in some recent years has had an equivalent impact (Nichols and Foott 2005). High levels of fish disease threaten the existence of remnant runs of spring Chinook and coho salmon and these problems are not likely to be remedied either before dam removal or afterward. Continuing operation of the KHP without mitigation poses high risk to these at-risk fish

populations and insufficient actions under the KBRA to abate nutrient pollution virtually assure the extirpation of these species before 2062.

A critical consideration is the urgent need for action given short term climate regime known as the Pacific decadal oscillation cycle (Hare et al. 1999, Collison et al. 2003) that affects Pacific salmon species:

> "If current patterns prevail, with shifts in the PDO occurring every 20 to 30 years (Hare et al. 1999), the next negative shift in the PDO for California is likely to occur in the 2015 to 2020 timeframe ..... If fresh water habitats have not recovered by that time, the fish will simultaneously face both degraded freshwater habitats and an unproductive ocean. The result could shift the stocks to endangered status or result in extinctions" (Collison et al. 2003).

This suggests that dam removal needs to be in advance of 2020 for the highest potential of success. Toxic algae from reservoirs will also continue to pose unacceptably high health risk for recreational or ceremonial use of the Klamath River until at least 2020, and this condition in and of itself should be sufficient cause for speedy KHP dam decommissioning.

"We must restore impaired ecosystems if we are ever to regain the natural capital necessary to prevent continued economic and social decay and to approach economic and ecological health and sustainability" (Society for Ecological Restoration 2004).

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My name is Sunshine Watkins, I am the Treasurer of Resighini Rancheria Business Council, which is a Federally Recognized Tribe at the top of the Klamath River Estuary.

Even though we are part of this river, we are excluded from Klamath Settlement discussions, and yet our rights to protect our fisheries and water quality will be terminated by the Secretary of Interior, if he makes an affirmative decision on dam removal.

- We will have no ability to participate as co-managers of fisheries or water quality for 50 years.

The Klamath Basin Restoration Agreement is like feeding poison to our people with a side of dam removal.

- It terminates our rights as Natives of the river from top to bottom, and does not secure enough water flow for salmon.
- It does not cure water pollution issues or restore enough marsh and lakes in the Upper basin for restoration of the sucker fish.

We favor speedy dam removal, but not through the Secretarial Decision and KHSA.

- We are working through the Federal Energy Regulatory Commission process with the California State Water Resources Control Board instead.
- Under the 401 Certification process the State will force dam removal because they will block issuance of a license.

  This is because pollution from the Klamath Hydroelectric Power reservoirs cannot be stopped unless dams are removed.

Our people have not seen anything like the September of 2002 fish kill or fish disease epidemics killing young salmon.

If we want our fish to survive into the future and stop toxic algae problems immediately. We need the dams out before 2020 and Restoration needs to start ~~now~~ while our river and salmon still have a chance. We need Ecological Restoration now which the current government process does not attempt.

alt 1 - no action

alt 2 - full facilities removal of all 4

alt 3 - Partial

alt 4 - fish passage @ 4 dams w/ flow req.

alt 5 - Fish pass @ Copco etc.

They try to make everything about us
Seem like it ~~was~~ of value or importance
and show only the so called negative
side of helping the issues.

Public comment period til Nov. 21

AA.4 Advocacy Organizations

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Diane Beck

From: "Diane Beck" <dfbeck@northcoast.com>
To: "Diane Beck" <dfbeck@northcoast.com>
Sent: Wednesday, October 26, 2011 3:16 PM
Subject: Re: Klamath dam removal, public meeting 10/26/11

> My name is . . . live in Kneeland, Humboldt County.
>
> I would like to express today some concerns of the Redwood Chapter Sierra
> Club, of which I am Conservation Chair. While the Sierra Club has not
> taken a formal position on the Klamath Settlement Agreement, I can say
> with no fear of contradiction that, first and foremost, our local, state,
> and national members want to see the removal of the four destructive
> Klamath dams and the restoration of salmonid fisheries.
>
> The Redwood Chapter has deep concerns with the February 2010 Settlement
> Agreement--the KHSA/KBRA. The KHSA provides a projected path to dam
> removal in 2020. But its linkage with KBRA--the Upper Basin water
> management agreement--both is unnecessary to dam removal and may doom both
> dam removal and salmonid restoration.
>
> There is no necessary nexus between the removal of the four dams and water
> management in the Upper Basin. PacifiCorp, the owner of the hydroelectric
> facilities, had little reason to get involved with the KBRA. The Redwood
> Chapter is deeply concerned with the KBRA. Salmonid restoration depends
> not merely on enough water but good quality water. North coast people
> know well inability to swim in the Klamath in summer without breaking out
> in a rash, the death of pet dogs from drinking from the river, the unusual
> number of diseased fish, and of course the 2002 fish kill. But the KBRA
> gives assurances of water quantity to Upper Basin irrigators and addresses
> water quality inadequately.
>
> As it is now, the quality of the water returning to the Klamath kills
> humdreds of sucker fish every year and there is a virtual dead zone in the
> Straits Drain and Keno Resevoir in August and September from agricultural
> runoff in the Upper Basin, from Tule Lake and Lower Klamath Lake--both of
> which, of course, are greatly diminished National Wildlife Refuges. Dam
> removal will remove the significant buildup of algae behind the dams, but
> the impacts from pollution from ag return water are a significant
> concern.
>
> Water for irrigators has primary priority under the Agreement, not fish
> and Wildlife Refuges. In spite of the fact that some 17,000 acres of Tule
> Lake Wildlife Refuge are diked and farmed, there is not even a willing
> seller buyout provision in the KBRA.

> The Redwood Chapter wonders how likely it is to expect that this Congress
> or the next will provide $1 billion for restoration under the KBRA. We

> wonder also whether it would not be better to work for dam removal under a
> Federal Energy Regulatory Commission process and for clean water
> certification under the California state and regional water boards.

Siskiyou County Water Users Association, Inc.

347 N. Main Street Yreka, CA 96097
(530)842-4400 fax(530)842-4481
bergeron@inreach.com

November 24, 2011

Ms. Elizabeth Vasquez
Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825

Gordon Leppig
California Department of Fish & Game
619 Second Street
Eureka, CA 95501

Dear Ms. Vasquez and Mr. Lippig:

The following are comments by the Siskiyou County Water Users Association, Inc. Relative to the **Klamath Facilities Removal Public Draft**

1. The Environmental Impact Report/Environmental Impact Statement (EIR/EIS) fails to follow the law as required by the **National Environmental Policy Act of 1969** as amended by (Pub. L. 91-190, 42 U.S.C. 4321-4347 January 1, 1070, as amended by Pub. L. 94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258, sec. 4(b), Sept. 13, 1982).

2. Section 101 (42 USC 4331) states:

   (b) In order to carry out the policy set forth in this Act, it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and **coordinate** federal plans, functions, programs, and resources to the end that the Nation may---

   1. fulfill the responsibilities of each generation as trustee of the environment to succeeding generations;

   2. assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

   3. attain the widest range of beneficial uses of the environment without degradation, risk to health and safety, or other undesirable and unintended consequences;

   4. preserve important historic, cultural, and natural aspects of our national

heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choices;

5. achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

6. enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Supporting NEPA regulations is the California Environmental Quality Act. (CEQA) CEQA sections 21002.1, 21081 specifically spells out the action must also benefit humans and not solely fish.

Page ES-17 states the EIR/EIS are in compliance, "This EIR/EIS is being prepared in compliance with NEPA and CEQA." This Statement \ is intentionally misleading since these actions were reached in secret meetings, with a pre-determined out-come as expressed by the Secretary of the Interior in his speech to the Commonwealth Club in San Francisco, California.

Alternatives 10 and 11 on pages 4-10 and 4-11 clearly lays out that the requirements do not comply with the KBRA and KHSA, however, under NEPA they should have been considered as viable options. Each alternative should be considered on their own merits as required by NEPA and CEQA,

In section ES.7.3 Environmentally Preferable/Superior Alternative. Alternative 11 was identified as the "environmentally preferable alternative that would result in the fewest adverse effects to the biological and physical environment." Consideration of this alternative should be re-considered under NEPA rules and not as per the KBRA/KHSA.

In the Department of the Interior, Bureau of Land Management publication, **Historical Landscape Overview of the Upper Klamath River Canyon of Oregon and California, Cultural Resource Series No. 13, by Stephen Dow Beckman**, clearly defines that the area of the 4 dams slated for removal as Shasta Aboriginal Territory. (Pages 9-13) The Shasta People were not invited to participate in any of the deliberations relative to the KBRA or KHSA. This Tribe should be considered since many of their village sites, burial grounds, cultural and religious sites are protected by the reservoirs behind the 4 dams slated for removal. Even though the Tribe is not recognized by the US Government, their Treaty R, signed on November 4, 1851 was never ratified by the US Senate. (Office of Indian Affairs, In Executive Session, Senate of the United States, January 19, 1905). The Shasta People should be treated equally as the other tribes have been in the case of dam removal. (See attached map showing Shasta Nation Aboriginal Land Boundary.)

At a time when we are searching for reasonable alternatives to fossil fuels, the algae at Copco Lake, through chemical reaction, can be converted to bio-fuel. By setting up an

aquatic weeds to fuel investigation, Copco would take the lead in pursuing economic value out of a semi-worthless material. Algae blooms rapidly and has rapid growth under the proper conditions when nutrients are available.

These dams hold back silt layers that have accumulated for almost 100 years. Copco 1 has had copper compounds added to the reservoir for the past 10 years to poison the algae. As copper is an aquatic toxin, the release of copper sediments would have a chilling effect to the down stream aquatic community. If there is a plan to recover this material and reformulate it as a soil additive, an organic fertilizer to enhance topsoil, then the dam removal might be workable because copper sequestered into a solid is not toxic to terrestrial life. However, dam removal is not necessary to remove the sediment, alternative methods, such as suction dredging could be employed.

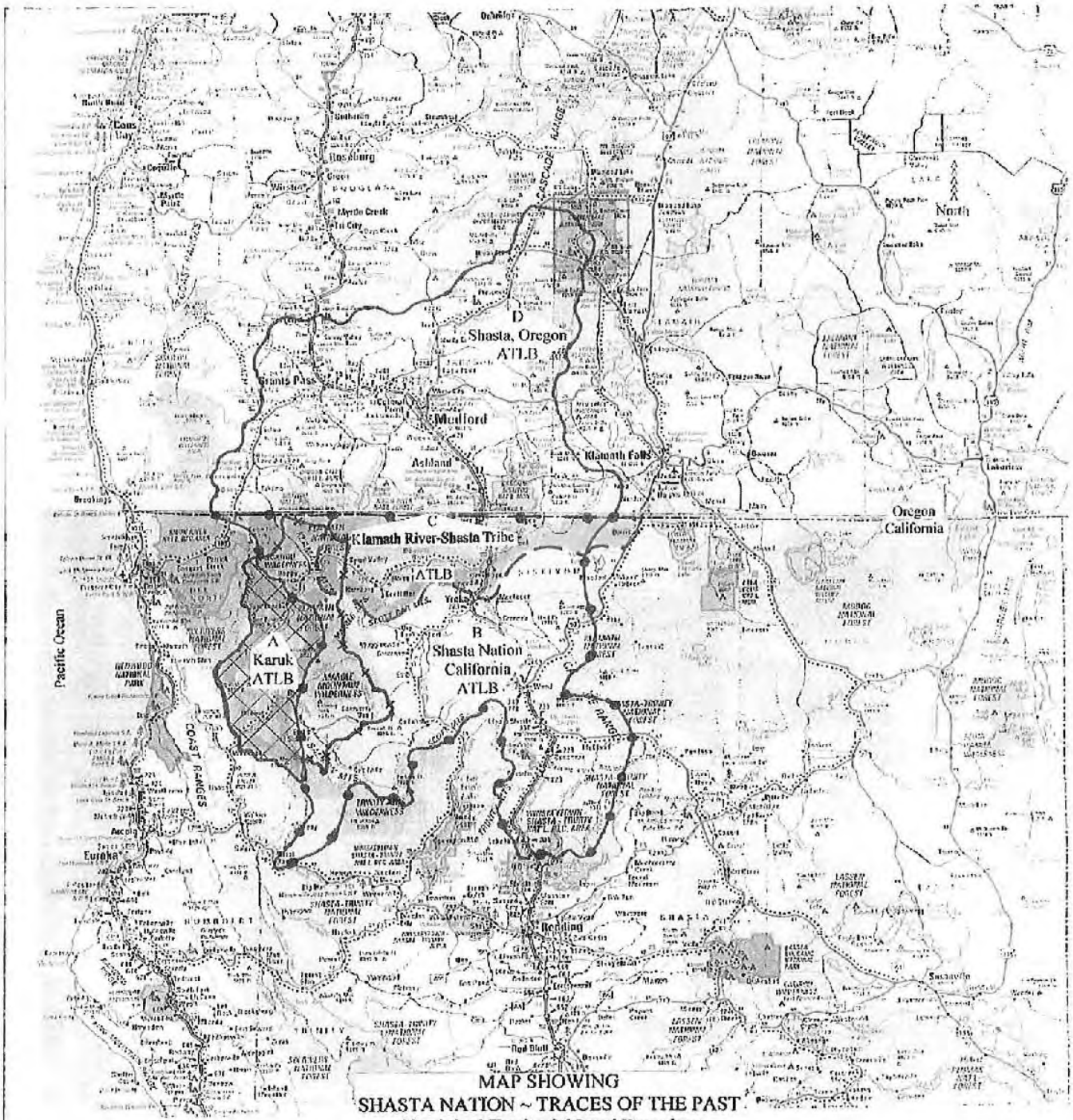
Should dam removal happen, the flow of sediment which is nutrient laden, and toxic to aquatic life, it would bury redds and saturate refugia sites doing irreparable damage to the fish species that people are trying to save.

Better than removing dams, implementing Alternative 11 would be a better buy for the fish, the public, the river and the 70,000 rate-payers. Cost is minimal as compared to dam removal.

Respectfully submitted,

Leo T. Bergeron, President

Siskiyou County Water Users Association, Inc.



MAP SHOWING
SHASTA NATION ~ TRACES OF THE PAST
Aboriginal Territorial Land Boundary

Miles
0 10 20 30 40

LEGEND

The intent of this map is to display for the record the preponderance of historical Documentation showing locates of junior and senior rights, pertaining to the Aboriginal Territorial Land Boundary (ATLB) of Native American Tribal areas in Northern California and Southern Oregon, prior to Euro-American occupancy of these lands, denoted as area's, A-Karuk, B-Shasta Nation, California, C-Klamath River-Shasta Tribe and D-Shasta, Oregon.

AO_LT_1230_067
Duplicate of
AO_LT_1222_048

Siskiyou County Water Users Association, Inc.

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December 20, 2011

Ms. Elizabeth Vasquez
Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825

Gordon Leppig California Department of Fish and Game
619 Second Street
Eureka, CA 95501

Dear Ms. Vasquez and Mr. Lippig:

The following are additional comments by the Siskiyou County Water Users Association, Inc., relative to the **Klamath Facilities Removal Public Draft.**

Some of the most prominent features in the Klamath Basin and in Siskiyou County carry the **SHASTA** name. Shasta Valley, Shasta Forest, Shasta Fir, Mt. Shasta, Shasta River, Lake Shastina, the City of Mt. Shasta and several communities in the region have at least one street that bears the name, "Shasta." In the aboriginal territory of the Shasta People we have Shasta Lake, Shasta Lake City, Shasta County and the town of Shasta west of Redding. Union Pacific Railroad has identified their properties in the region as the Shasta District.

Therefore, it is quite evident that the name **SHASTA** is synonymous within the Klamath Basin. The Shasta People have been here in the Klamath Basin long before Europeans arrived on this continent.

The Klamath Basin Restoration Agreement does not have one sentence acknowledging the fact that the Shasta People even exist today and the Klamath Hydro Settlement Agreement allows for interloping tribes, Karuk and Klamath, to occupy Shasta aboriginal territory. And yet, the Shasta People have a Treaty with the United States that was signed at the "Camp" at the confluence of Schackleford Creek and the Scott River, in Scott Valley, Siskiyou County, California on November 4, 1851. The Karuk Tribal leaders signed their Treaty Q on October 6, 1851 at Camp Klamath, located at the junction of the Trinity and Klamath Rivers. It is more that evident that neither the Karuk or the Klamath Tribes were ever occupants of the Upper end of the Mid-Klamath watershed, its

tributaries and well to the Southeast into Shasta County Then north into Southern Oregon.

There are numerous papers, articles and publications that identifies the Shasta Nation as the early occupiers of this region. In a paper entitled, "Shasta Nation History; Traces of the West", General Halleck, Commanding Officer at the Jefferson Barracks in Missouri, makes note of the poisoning of many Shasta Tribal members at Fort Jones. He was concerned, and wanted to know why those responsible for this act of genocide were never prosecuted. This recorded event clearly identifies these lands as Shasta Nation Aboriginal Territory.

The Shasta People fished and hunted in this region and lived in small communal bands or families. The Shasta People obtained obsidian for hunting from eastern Siskiyou County in the region known as the Medicine Lake Highlands. It recorded, in many accounts that Shastas traded salmon with their up-river neighbors, the Klamath Tribes.

An anadromous fish passageway has been developed and named after the first occupiers of this region, It has been named the Shasta Nation Unassisted Volitional Anadromous Fish Passageway, Alternative 11 in the Klamath Facilities Removal Public Draft. This alternative would allow the salmon around the three lower dams located in California. The fish would pass through a tunnel which would connect the Klamath River to Bogus Creek below IronGate Dam to the River above COPCO 1. This is the most viable and least expensive of **ALL** alternatives. In Section ES.7.3. of the Klamath Facilities Removal Public Document, the Environmentally Preferable/Superior Alternative, Alternative 11, was identified as the "Environmentally Preferable/Superior Alternative that would result in the fewest adverse effects to the biological and physically environment."

It is therefore, obvious that the Shasta Nation should be considered as a Native American Treaty Tribe and should be invited to participate in **ALL** discussions relative to dam removal since many of their ancestral burial grounds, villages, cultural and religious sites are protected by the waters in the reservoirs behind the dams that have been selected to be removed.

Respectfully,

Leo T. Bergeron
President, Siskiyou County Water Users Association, Inc.

WATERWATCH

PROTECTING NATURAL FLOWS IN OREGON RIVERS

December 29, 2011

Ms. Elizabeth Vasquez
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RE: WaterWatch Klamath DEIS Comments and Attachment

Dear Ms. Elizabeth Vasquez and Mr. Gordon Leppig:

These comments are submitted in response to the Klamath Facilities Removal Draft Environmental Impact Statement/Environmental Impact Report. WaterWatch is a 501(C)(3) non-profit organization dedicating to protecting and restoring natural streamflows in Oregon rivers. We appreciate this opportunity to comment on the draft environmental impact statement (DEIS).

INTRODUCTION

WaterWatch fully supports the removal of the four lower river mainstem dams on the Klamath River, and believes removal of these facilities will advance restoration of the salmonids fisheries of the Klamath Basin, and is in the public interest. The fish passage, increased habitat, and water quality benefits of facilities removal far outweigh the loss of the small amount of power generated at the dams. There are tremendous short-term job creation and economic benefits from implementing dam removal restoration work, and over the long term a restored Klamath River will continue to deliver important economic benefits to the region annually.

WaterWatch does **not**, however, support the Klamath Basin Restoration Agreement (KBRA) and does **not** support linking the KBRA to the Klamath Hydropower Settlement Agreement (KHSA) or to any other dam removal alternative. In particular, WaterWatch

opposes the KBRA because it contains provisions, subsidies, and special contracts harmful to Klamath Basin National Wildlife Refuges, and undermines Endangered Species Act (ESA) protections to listed fish by requiring regulatory assurances under the ESA to Klamath Irrigation Project irrigators at levels of water use that do not support current ESA required river flows. In addition, the KBRA does not require any minimum flows for fish or set any goals to meet current ESA required flows, either in the KBRA or the drought plan that was developed under the KBRA. WaterWatch's opposition to the KBRA and our concerns with the KHSA are more specifically expressed in the attached WaterWatch Memo of KBRA-KHSA Foundational Concerns. WaterWatch believes that the cost and adverse impacts of the KBRA negate and compromise many of the public benefits that can be achieved from dam removal without the linkage. In fact the linkage may actually delay, limit, and setback salmonid restoration and recovery in the basin. A major flaw in the DEIS is its failure to consider dam removal alternatives that are not linked to the KBRA. In addition, though the proposed action is linked to the KBRA, the DEIS's analysis of the KBRA is incomplete, inadequate, and often inaccurate. In particular, the DEIS is deficient in its failure:

- To analyze dam removal alternatives without the KBRA linkage.
- To analyze other non-KBRA restoration alternatives.
- To adequately analyze the No Action alternative.
- To analyze impacts of the KBRA on the Lost River Basin.
- To adequately analyze the KBRA impacts to Upper Klamath Lake.
- To analyze the costs of the KBRA water subsidies, power subsidies, debt cancellation, special contracts, and refuge leaseland revenue sharing, and their impact on refuge wetlands and management, on water and power use and conservation, on groundwater development, and on springs and river flows.
- To analyze impacts of commercial farming on the refuges and alternative refuge management options.
- To analyze whether current ESA flow requirements can be met at the KBRA Klamath Project water limitation/water guarantee level.
- To analyze an alternative designed to meet current ESA river flow and Upper Klamath Lake level requirements.
- To analyze the ongoing costs of a drought plan.
- To analyze whether the KBRA debt cancellation, new D-plant pumping cost sharing arrangement, and the Bureau of Reclamation's assumption of the cost of Keno Dam and Link River Dam operation are consistent with Reclamation law on cost sharing.

WaterWatch comments below will cover these and other issues in more detail.

INADEQUATE ALTERNATIVES ANALYSIS

According to the DEIS, NEPA requires "Rigorous exploration and objective evaluation of all reasonable alternatives, and for alternatives which were eliminated from study, a

brief discussion of the reasons for their having been eliminated." (Page 2-1) In addition, under 40 C.F.R. § 1502.14(a),(b),(c), the EIS must "rigorously explore and objectively evaluate all reasonable alternatives," and "devote substantial treatment to each alternative . . . so that reviewers may evaluate their comparative merits," including "reasonable alternatives not within the jurisdiction of the lead agency. *See also* 43 CFR 46.420(c) (defining "range of alternatives"). The White House Council on Environmental Quality (CEQ) reminds us that in establishing a reasonable range of alternatives, "the emphasis is on what is 'reasonable' rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative." Furthermore, the CEQ adds that "an alternative that is outside the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable. . . . Alternatives that are outside the scope of what Congress has approved or funded must still be evaluated in the EIS if they are reasonable, because the EIS may serve as the basis for modifying the Congressional approval or funding in light of NEPA's goals and policies." *See CEQ NEPA's Forty Most Asked Questions, 1. and 2.*

Inappropriate Rejection of Alternative 8.

Based on this federal guidance and the legal requirements of NEPA and an EIS, the DEIS is legally insufficient because of its failure to analyze dam removal alternatives that are not linked to the KBRA. The DEIS's basis for dismissal of Alternative 8 from consideration is unfounded and arbitrary:

"Alternative 8 will not be carried forward for more detailed analysis in the EIS/EIR because it does not meet most of the purpose and need/project objectives and would not reduce environmental effects of the Proposed Action. The effects of removing the four dams and related facilities will be fully analyzed under Alternative 2." (Table 2-2, page 2-5)"

The purpose and need is stated as follows:

> The Proposed Action is to remove the four lower PacifiCorp dams on the Klamath River. The need for the Proposed Action is to advance restoration of the salmonid fisheries in the Klamath Basin consistent with the KHSA and the connected KBRA. The purpose is to achieve a free flowing river condition and full volitional fish passage as well as other goals expressed in the KHSA and KBRA. (Page 1-29)

It is difficult to imagine how a reasonably likely Alternative 8 scenario resulting in four lower dam removal does not meet the proposed action of four lower dam removal above. Moreover, if the need includes required consistency with KBRA and KHSA, certainly Alternatives 4 and 5 are inconsistent with these agreements and both of there are just as reasonably likely to occur as Alternative 8. Excluding 8 for this reason is illogical and inappropriate. Also, using a restrictive definition of need should not allow agencies to escape their duties under NEPA. A much more appropriate statement of purpose and need would be:

"The Proposed Action is to remove the four lower PacifiCorp dams on the Klamath River. The need for the Proposed Action is to advance restoration of the salmonid fisheries in the Klamath Basin consistent with *the federal government's responsibilities*

in respect to the Endangered Species Act, the Clean Water Act, the National Wildlife System Improvement Act of 1997, the cost-sharing provisions of Reclamation Law, and its responsibilities to the Tribes. The purpose is to achieve a free flowing river condition and full volitional fish passage to advance salmonid fisheries restoration."

Finally, the conclusion that Alternative 8 would not reduce environmental impacts of the Proposed Action is without merit. Implementing Alternative 8 actually does "reduce environmental effects of the Proposed Action" because it would prevent the damaging environmental impacts of the KBRA from being locked in for the next 50 years. Some of the damaging environmental impacts of the KBRA that could be avoided by not implementing the KBRA include: 1) Damage to the habitat, water quality, waterfowl, fish, and wildlife by institutionalizing and subsidizing continued harmful commercial farming on Tule Lake and Lower Klamath National Wildlife Refuges; 2) Damage to these refuges by eliminating the best means of achieving water security for the refuges; 3) Keeping the purpose of the wildlife refuges subservient to the purpose of the Klamath Irrigation Project (KIP); 4) Damage to the Klamath Basin aquifer, river flows, and water quality by subsidizing unsustainable groundwater pumping; 5) Harm to the Klamath Basin's aquatic resources by implementing a KBRA water plan that does not provide adequate flows or lake levels consistent with the best available science; 6) Damage to the fish, wildlife, and water quality of the Klamath Basin downstream of Upper Basin irrigation by subsidizing unsustainable and uneconomic water pumping through irrigation electricity subsidies; 7)Damage to aquatic resources and refuges caused by setting the KIP water limitations at a level that is too high; 8) Damage to refuges during droughts by drastically cutting water to the refuges during droughts; and 9) Damages to refuges by allowing water deliveries to refuge land for commercial farming even when water to refuge wetlands is being cutback. The DEIS is also deficient for not properly analyzing these impacts in its analysis of Alternative 2 (the Proposed Action).

To come into compliance with NEPA, WaterWatch strongly urges consideration and adoption of the "Initial Alternative" 8, described in Table 2-2, page 2-5 as "Remove four dams and related facilities but do not implement KBRA elements."

Inappropriate rejection of Alternative 13 –the Federal Takeover Alternative.

Alternative 13, the Federal Takeover alternative was rejected because:

"Alternative 13 will not move forward for more detailed analysis in the EIS/EIR because the environmental impacts would be generally the same (and have generally the same timeframe) as those under Alternative 2."

First, the conclusion that Alternative 13 would have the same environmental impacts as Alternative 2 is without merit because Alternative 2 is linked to the KBRA, which has a broad range of adverse environmental impacts as discussed in the discussion on the rejection of Alternative 8 above. Also, there are minimal interim measures under the KHSA which allow for continued harm from dam operations until removal with no definite date to return to the FERC process even if dam removal is not accomplished by 2020. Also, the assumption that dam removal through a federal take over would be in the same general timeframe as dam removal under the KHSA is not necessarily accurate. A shorter timeframe could be required in a Federal take over, but moreover the fact that the KHSA has so many contingencies and no specific limit to annual licenses, there is a great

risk that dam operations may continue well past 2020 without any meaningful interim conditions.

Deficient Alternative 1 (no action) analysis.

Alternative 1 (no action) is described in the DEIS as "Klamath Hydroelectric Project would continue current operations." (Table 2-3, page 2-7)

The DEIS also states:

> For the purposes of this analysis, the No Action/No Project Alternative will continue current operations with the Four Facilities remaining in place and PacifiCorp operating under the current annual license." (Page ES-21)
>
> and
>
> As the FERC relicensing process would resume following a negative determination on dam removal from the Secretary, Alterative 1 could not continue for decades as the status quo; however, over 50 years, this alternative would likely retain the majority of the existing hydroelectric power generation capacity and the reservoirs would remain in place and would continue to be used for recreational purposes." (Page ES-42)

These assumptions for Alternative 1 cannot be considered reasonable or realistic, and lead to an inadequate analysis of the no action alternative under NEPA. The DIES suggests under Alternative 1 that PacifiCorp may operate its Klamath River dams on annual licenses without interim prescriptions for the next 50 years, or perhaps could somehow receive a new 50-year license from FERC that does not contain the current mandatory fish passage prescriptions. This is in fact, a very improbable scenario since resources agencies have already prescribed full volitional passage and these prescriptions have survived legal challenge. Because of this fact, the collapse of the KBRA/KHSA described as the precondition justifying the exploration of Alternative 1 would result - at minimum - in extensive modifications to the structures and operations at all current dams to provide full volitional fish passage as currently prescribed by law and described in Alternative 4: "Construct fish passage facilities to provide upstream and downstream passage at four dams." (Table 2-3. page 2-7).

It is reasonable to assume that PacifiCorp and relevant regulators – facing obvious financial, technical, or regulatory challenges in implementing these existing mandatory conditions - may choose other alternatives to achieve similar results as would be achieved under Alternative 4. Another plausible no-action alternative is reflected by Alternative 5: "Remove Copco 1 and Iron Gate Dams, construct fish passage at J.C. Boyle and Copco 2 Dams." (Table 2-3. page 2-7) The nation's long-term budget crisis, limited support in Congress, and high level of controversy surrounding the KBRA makes passage of KBRA legislation highly unlikely and therefore makes Alternatives 2 (the proposed action alternative) and other alternatives linked to the KBRA unlikely.

PacifiCorp's repeated public statements indicating an unwillingness to go forward with a new license requiring full volitional passage at the four dams, as well as multiple studies showing relicensing the four lower dams under current mandatory conditions economically unfeasible, makes Alternative 4 barely plausible. Finally, unknown water quality permit conditions as well as the financial considerations of operating two remote,

marginal, and outdated dams at lower generation capacity may combine to make Alterative 5 unattractive to PacifiCorp and thus unlikely.

The no action alternative is still reasonably likely to lead to removal of some or all of the dams given the findings in the FERC relicensing EIS and the unlikely event that California will grant water quality certification. In fact, a reasonable argument can be made that dam removal might be more likely to be achieved by a return to the relicensing and water quality certification processes than via the KHSA linked to the KBRA proposed action alternative given all the contingencies in the KHSA and the cost and controversy over the KBRA. Alternatives 4, 5, 6 or 8 could more reasonably be considered for the "no action" baseline, since failure of KBRA legislation and/or a negative Secretarial Determination would likely result in one of these three scenarios, and they more accurately describe what is likely to occur if there is no action than does Alternative 1.

A no action alternative should not just consider the current status quo, but should also consider the impact of events that will occur if the proposed action is not elected. The DEIS should look at a no action alternative that recognizes legal processes that are well underway and will change the current status quo. For instance, besides failing to consider what is likely to occur under the FERC and water quality certification processes, the no action alternative analysis also fails to acknowledge that the Oregon water rights adjudication process will soon be concluded, thereby allowing for regulation of water use to meet the Klamath Tribes instream and lake level water rights and the water rights of Upper Klamath Lake, Lower Klamath Lake and Tule Lake National Wildlife Refuges creating options for restoration and fish and wildlife enhancement that the Proposed Action (alternative 2 linked to the KBRA) will either limit or foreclose. The DEIS also fails to acknowledge the requirements of the National Wildlife System Improvement Act of 1997, the fact that a Comprehensive Conservation Plan planning process is underway for Lower Klamath NWR, Tule Lake NWR and Upper Klamath Lake NWR, and that power rates are going up to market rate for Klamath Project irrigators.

No non-KBRA restoration alternative considered.

Since the KBRA is linked to dam removal as a restoration alternative, it is reasonable and necessary to consider other less harmful non-KBRA restoration alternatives, including the following:

- An alternative that provides guaranteed Klamath River flows and Klamath Lake levels for fish based on the best available science.
- An alternative that focuses on providing more water to fish and refuges by permanently reducing irrigation water demand (beyond the current KBRA prescription); full consideration and scientific evaluation should be given to basin water levels which provide a more reasonable balance between instream flows, lake levels, refuges and the needs of agriculture, ultimately providing a more sustainable water regime for healthy Klamath Basin ecosystems. Under this alternative, the EIS should consider using the KBRA water and power funding to instead implement a willing seller buyout program, developed by the Department with public input, to permanently reduce irrigation water demand in the Upper

Basin, the Lost River Basin, the Klamath Irrigation Project, and the Shasta and Scott Rivers to a level that will meet science based restoration goals.

- An alternative that will reduce irrigation season water demand, allow for winter water storage, improve water quality, and increase refuge wildlife habitat by phasing out the commercial agriculture on Lower Klamath and Tule Lake National Wildlife Refuges, and instead managing National Wildlife Refuge land for the above purposes.

INCOMPLETE, INADEQUATE, AND INACCURATE KBRA ANALYSIS

It is interesting that the agencies reject looking at non-KBRA dam removal alternatives, while at the same time electing to limit their analysis of the KBRA that they have firmly linked to dam removal. The agencies are promoting the KBRA, but avoiding a transparent and thorough review of pertinent KBRA issues thereby depriving the public and Congress of important information needed to assess the true impacts and costs of the KBRA. The KBRA requires federal legislation that limits NEPA analysis of the KBRA to a piecemeal analysis when agencies take specific KBRA actions after legislation has passed, but the KBRA and the KBRA legislation itself have provisions that have environmental impacts that will thereby never get NEPA review unless it occurs in this NEPA process. As the proposed action (Alternate 2) includes implementation of the KBRA, a thorough review under NEPA is required and is needed to inform Congress and the public.

Failure to analyze the costs and impacts of KBRA subsidies, special contracts, debt cancellation, federal assumption of Keno and Link River Dam operational costs, and leaseland revenue sharing.

The KBRA and legislation required by the KBRA have provisions involving what amount to subsidies, special contracts, and agreements some of which are not allowed under existing law. These provisions have an enormous price tag to the U. S. taxpayer, while at the same time having significant adverse environmental impacts. There is either no discussion or inadequate analysis of these provisions. A discussion of these KBRA provisions follows:

KBRA Water Development Subsidy for On-Project Water Plan

Summary of subsidy:

- **$92,500,000 to KWAPA** (an entity controlled by Klamath Project irrigators) for development and implementation of a Klamath Project water plan (Line 66, page 8, Appendix C-2, and Section 15.2, Page 66 of the KBRA).
  - The KBRA does not require any NEPA review, or other public oversight of the development of the plan, or expenditure of the funds. Plan review is limited to a 60-day review by the Bureau of Reclamation.
  - Parties to the KBRA must support funding to implement the water plan though no plan yet exists.
  - A scientifically based, permanent demand reduction program that includes conservation easements, updated conservation to irrigation systems, and water rights acquisition, etc. should be developed by the federal government with full

public participation and review under NEPA; without this process, there is great risk that any KBRA water plan funding will result in a subsidy to Project irrigators without measurable public benefits, or worse, finance unsustainable ground water development in the region.

The DEIS does discuss the On-Project Water Plan, but wrongfully concludes on page 3.3-143 that the plan will improve water quantity and quality and therefore is beneficial to salmonids. The DEIS also wrongfully concludes on pages 3.7-19 and 3.7-20 that: "In the long-term implementation of the On-Project Plan (KBRA Section 15.2) and the Water Diversion Plan (KBRA Section 15.2.4) would be expected to benefit groundwater resources by protecting them from overuse (through provisions prohibiting adverse impacts to groundwater, where none currently exist).

These conclusions are based on the fact that "the On-Project Plan would include a groundwater monitoring plan that limits pumping so that flows from springs in the watershed upstream of Copco 1 Dam would not be reduced by more than 6 percent, protecting these important habitats that provide stable habitat conditions and often support rare or unique species", and because "it would also provide a plan to implement the water diversion limitations described above.". The problem with these conclusions is twofold. First, a water plan does not yet exist that can be evaluated and the plan does not have any sideboards that require any actual reduction in overall irrigation demand. This means that it is possible that a substantial amount of the $92.5 million could go to increased water groundwater development in the basin to make-up for the water they will not be directly diverting from the Klamath River. Second, though there is a required monitoring plan that offers some protection to springs, the DEIS fails to highlight or note that it is the $92.5 million subsidy in the KBRA that makes large scale groundwater development possible in the first instance. The monitoring may limit the harm from this subsidy but the subsidy will still be harmful. The DEIS recognizes the importance of springs to water quality and quantity in the Klamath River but doesn't recognize or analyze the adverse water quality and quantity impacts that even a 6% reduction in clean cold water spring flow would have in the Klamath River, which reduction is made possible by the subsidy. What would be the predicted impact on KBRA Klamath River flows if spring flows were reduced by 6%? Also, the impacts from groundwater development might not be readily ascertainable and the reduction to spring flow could be a number of years out creating a risk that a portion of the $92.5 million dollars may be invested in a manner that is not sustainable and the investment would be lost. It is highly likely that the On-Project water plan subsidy will actually further reduce river flows, diminish water quality, and be harmful to salmonids.

It should also be noted that the DEIS claims the monitoring plan in the KBRA protects groundwater where no protections exist. In fact there are provisions in Oregon water rights law and Oregon's Scenic Waterways Act that in many cases will actually give greater protection to the Klamath River and its groundwater resources than the KBRA provisions. Also, the KBRA groundwater protections don't apply to the Lost River and Tule Lake Basins, where most of the groundwater impacts are likely to occur because California law doesn't offer the same protections as Oregon.

The DEIS is deficient because the agencies have conveniently and inappropriately decided not to assess impacts to the Lost River and Tule Lake Basin or the Pitt River

basin that might be affected by groundwater development subsidized by the KBRA. The reality is that groundwater development on the Oregon side of the Klamath Project will be somewhat limited by Oregon law as discussed above, but there are few restrictions on groundwater development on the California side. What can be expected is a large increase in groundwater development just over the border in California. This could have a major impact on springs and refugia for ESA and CESA listed suckers in the Lost River and Tule Lake Basin and other aquatic and terrestrial wildlife, as well as on the water supply for Oregon communities (the impacts on Oregon community water supply have been well documented during past intensive groundwater use during droughts), and by causing interference with existing wells. As some groundwater in this region eventually flows to the Pitt River, impacts could be seen there as well. Also, the Lost River basin is connected to the Klamath River Basin via the D-Plant pumping station and the Klamath Straits Drain. Groundwater development in the Lost River Basin could also decrease Lost River basin return flows to the Klamath River further decreasing Klamath River flows.

It is interesting to note that impacts are expected in the Lost River Basin from the Water Plan because the KBRA, as noted in the DEIS, requires California Department of Fish and Game to submit California legislation that will allow take of southern bald eagles, golden eagles, greater sandhill cranes, American peregrine falcons, and shortnose and Lost River suckers in the Lost River and Tule Lake Basins in California under California's Endangered Species Act (CESA) (Section 24.2 of the KBRA). This could lead to setting aside existing CESA protections and highlights the concern that the KBRA will actually make matters worse in the Lost River and Tule Lake Basins. The lack of an analysis of impacts to the Lost River and Tule Lake Basins is a major legal deficiency in the DEIS.

In the past, temporary groundwater use has been a major tool for dealing with droughts in the basin. Extensive new groundwater development could undermine and limit the tools available for a drought plan. The DEIS should evaluate the impacts that potential use of this subsidy for large scale groundwater development could have on responding to future droughts.

KBRA Power and Pumping Cost Subsidies

Summary of subsidies:

- Over $50,000,000 in power subsidies (See KBRA Sections 14 and 17, and lines 72 - 75 on Appendix C-2). These subsidies will be distributed to Klamath Project irrigators in Oregon and California, as well as certain Klamath County, off-project irrigators to reduce their power costs. $7,690,000 of this sum will be direct payments to reduce power bills (Section 17.5), while $42,498,000 (Section 17.7) will fund unspecified projects to generate renewable energy and increase energy efficiency to indirectly reduce power costs of Klamath Project and certain Klamath County irrigators.
    - Klamath Project irrigators and Klamath County off-project irrigators long enjoyed power rates considerably below market rates for other agricultural users under special contracts with PacifiCorp. Those contracts were terminated as discriminatory by the Oregon Public Utility Commission and the California Public

Utility Commission in 2007. To prevent rate shock, the Oregon legislature passed legislation that ramps power rates up to market value for affected Klamath County Oregon over seven years; California Public Utility Commission gave California Klamath Project irrigators a four year ramping period.

- The KBRA modifies existing contracts; increases the payment obligation by the USFWS and decreases the amount paid by Tule Lake Irrigation District for D plant pumping (KBRA, Section 15.4.2A).
  - This requirement likely violates current Reclamation law on cost sharing, therefore Section 15.4.6 circumvents the law by requiring the Secretary of Interior agree that the cost sharing agreements in the KBRA are not a "contract" as defined in the Reclamation Reform Act of 1982 (Public Law 97-293).
  - D plant pumping costs will increase by 6.5% for the USFWS and decrease by 6.5% for TID under the KBRA. The KBRA budget provides for $170,000 per year to cover this cost (line 69, Appendix C-2).
- In addition the KBRA Section 17.6 provides that Klamath Project irrigators receive an allocation of power from the Bonneville Power Administration that will also provide them a lower preferential power rates from the Columbia River Hydropower System.

The DEIS does not discuss or analyze the taxpayer cost or adverse impacts of these subsidies. The following adverse impacts of these subsidies should be addressed:

1. These power subsidies allow Project irrigators to either directly or indirectly enjoy lower power costs and below market power rates. These lower power costs to be funded by the U.S. taxpayer subsidize draining Tule Lake National Wildlife (TLNWR) wetlands for commercial agriculture rather than allow management of these lands for the refuges intended fish and wildlife purposes. The construction of the tunnel through Sheepy Ridge and the D pumping plant in 1942, coupled with years of below market power rates, have allowed Project irrigators to pump water off, drain, and keep drained 15,500 acres of Tule Lake NWR so that the lands can be commercially farmed. Commercial farming of TLNWR land is very harmful as will be discussed below. Refuge personal testified at the California rate hearing that once Tule Lake farmers were required to pay market power rates, they would no longer be able to economically drain these important wetlands. The KBRA provides taxpayer funded subsidies that allow continued harm to an incredible public resource.
2. Subsidizing power costs also encourages wasteful water and power use and discourages water and power conservation.
3. There is no public policy purpose for these subsidies. Rather, these subsidies just advance narrow private interests and provide some farmers and ranchers with an unfair competitive advantage over other nearby farmers and ranchers that won't receive these subsidies.
4. The DEIS should also discuss whether any of these subsidies and special cost sharing arrangements violate the Reclamation Reform Act of 1982 (Public Law 97-293)

Debt Forgiveness Subsidy

Summary of subsidy:

- Currently there exists a dispute between the federal government and Klamath Project irrigators on the amount of Klamath Project capital costs currently owed by Klamath Project irrigators to the United States, and how much of the leaseland revenue in the Reclamation Fund should be applied to the aforementioned capital costs. Rather than protecting the taxpayer, the KBRA provides that the debt owed, though yet to be determined, will be forgiven (KBRA, Section 15.4.4 A).

The DEIS should determine the amount of debt that will actually be forgiven so the public and Congress can understand the true cost to the taxpayer of this provision.

Leaseland Revenue Subsidy

Summary of subsidy:

- Approximately 60% of the net revenue from leasing refuge land for commercial farming are directed to the Bureau of Reclamation and applied to the benefit of Project irrigators.
    - These revenues will cover costs of maintaining and operating Keno and Link River Dams (a cost that should be born by Project irrigators), and any remaining funds will either be applied to reduce future capital costs of the Project, or subsidize power costs to both on and off Project irrigators (Section 15.4.4 B and Appendix A, Section H).
- In addition, 20% of leaseland revenues are directed to USFWS, 10% to Tulelake Irrigation District (TID), and 10% to Klamath Drainage District (KDD).
    - TID and KDD represent the two irrigation districts, whose customers commercially farm the refuges.
    - These revenue allocations create agency dependence on leaseland agriculture for both the Bureau of Reclamation and USFWS. Harmful commercial agriculture on federal refuge land should be phased out, not used to subsidize Project operations or irrigators.
    - Federal legislation is necessary to implement this reallocation of leaseland revenues, as the provision is inconsistent with existing law.

The DEIS should analyze the impacts of these subsidies. This is especially important because this subsidy needs federal legislation to implement and Congress and the public should be fully informed of its ramifications. This provision of the KBRA and the legislation that is required by the KBRA sets a terrible precedent for national wildlife refuge management as it institutionalizes using Lower Klamath and Tule Lake National Wildlife Refuges for commercial purposes to generate revenue rather than promoting refuge management for fish and wildlife purposes. Interior should not be using national wildlife refuges to subsidize operations of a federal reclamation project even if a small share of the revenues goes back to USFWS.

By diverting refuge commercial leasing revenues for the purposes specified in the KBRA, the KBRA will increase and broaden the political support for continuing

commercial farming on these two national wildlife refuges at a time many have begun to question the practice. This revenue sharing arrangement will also create an agency dependence on farming the refuges with both the Bureau of Reclamation and USFWS, and could undermine the Comprehensive Conservation Plan (CCP) process currently underway for these refuges. As part of the CCP process required under the National Wildlife Refuge Systems Improvement Act of 1997 the compatibility of commercial farming on these refuges should be analyzed and should be found to be incompatible and inconsistent with refuge purposes. These cost sharing subsidies and other KBRA provisions promote continued commercial farming on these refuges. The DEIS should discuss fully the impacts of commercial farming on these refuges and the impact of the KBRA on commercial farming. The impacts of commercial farming on the refuges will be discussed more fully in the section on refuges below.

Link River and Keno Dam Operations Subsidy

Summary of Subsidy:

- The Bureau of Reclamation will be assuming all costs for operating Link River Dam and Keno Dam for Project diversion (Section 15.4.5 A).
    - PacifiCorp is not seeking a new license to generate power at Link River and Keno Dam. These dams also serve as diversion structures for the Klamath Irrigation Project.
    - At present, the cost of operating these facilities are currently paid by PacifiCorp; however, once they are used for irrigation purposes only, the federal government should not be fully responsible for this cost. Project irrigators should be required to pay their share as required under current cost-sharing laws.

The DEIS should discuss these costs and the degree to which Reclamation assumption of these costs is in conformity with current Reclamation cost sharing laws and regulations. In addition, following transfer of the facilities to Reclamation, the KBRA requires operation to maintain water levels for irrigation in accordance with historic practices. This greatly reduces the management flexibility that may be needed to address water quality concerns in the reach of the Klamath River between Link River Dam and Keno Dam. The DEIS should discuss the impacts from continued historic operations.

The DEIS should analyze how all these subsidies taken together are supporting agricultural activity in the Klamath Basin that might otherwise not be economically viable and that will continue to be a burden to the U.S. taxpayer. At the same time these subsidies make it more difficult to address the basin's water over-allocation problems and the problems with commercial farming on LKNWR and TLNWR, by reducing incentives to conserve water and power, by reducing support for a willing seller water and/or irrigated land buyout program in the basin, and by making it financially easier to drain refuge wetlands for commercial farming.

Failure to adequately or accurately address KBRA impacts to National Wildlife Refuges

The DEIS concludes that the KBRA would generally be beneficial for the terrestrial resources on the Upper Klamath, Lower Klamath, and Tule Lake National Wildlife Refuges. (See pages 3.5-67 to 3.5-6.9 and page 4-105). The DEIS does not provide sufficient evidence to support this conclusion, and overlooks and fails to analyze many of

the provisions in the KBRA that have adverse impacts to the refuges. The conclusion that the KBRA is generally beneficial to the refuges is based predominately on the assumptions in a USFWS 2010 report, that the KBRA will lead to increased water deliveries to LKNWR and TLNWR and therefore there will be more wetlands available for wildlife, and the assumption that the refuges cannot do better under a no action or other non-KBRA alternative.

A more thorough analysis of the KBRA will show that the KBRA will not provide either sufficient water to Upper Klamath NWR, or a better water situation for the refuges. In respect to Lower Klamath and Tule Lake National Wildlife Refuges, they still will not have sufficient water during many years and it is doubtful that the KBRA will provide a more secure water situation for Lower Klamath and Tule Lake National Wildlife Refuges than non-KBRA alternatives. In fact, the KBRA will make things much worse in general for the Refuges, because of the impact of KBRA subsidies as previously discussed in pages 7 to12 above; because it forecloses and limits opportunities to provide a better and more secure water future for the refuges; and because it predetermines refuge management for the next 50 years in a way that is harmful to the refuges. This is demonstrated by the following analysis of KBRA impacts on the refuges:

Locking in harmful commercial farming on LKNWR and TLNWR

First, the DEIS does not adequately or accurately describe the current commercial farming activities on Lower Klamath National Wildlife Refuge (LKNWR) or Tule Lake National Wildlife Refuge (TLNWR) or the impact of these operations.

In respect to LKNWR, the DEIS states on pages 3.5-19 and 3.5-19 that: "In addition to wetland habitats, Lower Klamath NWR also contains approximately 9,000 acres of agricultural lands including grain fields that are extremely attractive to fall migrant and wintering waterfowl and large numbers of wintering raptors, with bald eagles being the most conspicuous." The DIES is not clear whether these 9,000 acres includes refuge acreage leased for commercial farming or are acres farmed cooperatively for wildlife management purposes rather than commercial purposes. The DEIS does not indicate how many acres of LKNWR are leased for commercial farming of which there are approximately 7,000 acres leased for commercial farming purposes.

In respect to TLNWR, the DEIS states on page 3.5-20 that there are 17,000 acres of croplands and that: "In addition, Tule Lake NWR agricultural programs require growers to leave a proportion of small grain crops (typically 25-33 percent) standing for wildlife consumption. The high energy content of agricultural crops provides an important energy source for migrating waterfowl as they travel northward and southward in the Pacific Flyway (USFWS 2010)." Again, the DEIS does not give any breakdown between cropland that is land leased for commercial farming and land that is farmed cooperatively, and wrongfully gives the impression that the farming on TLNWR is beneficial to wildlife. It is only the cooperative agricultural programs that require a percentage of grain be left for wildlife and there are now very little, if any, of the croplands on TLNWR that are part of the cooperative farming program. Most refuge croplands are actually leased for commercial farming and do not require a portion of the crop be left for wildlife and in fact many of the crops on these lands have little or no food value for wildlife.

Second, the DEIS should have described some of the harmful impacts of leasing land for commercial farming on LKNWR and TLNWR. This is important to understand many of the adverse impacts of the KBRA. Eleven of the most harmful impacts and lost restoration opportunities caused by leasing refuge land for commercial farming are:

1. Commercial farming on refuge land uses scarce water resources at the expense of refuge wetlands, and the fish and wildlife of Upper Klamath Lake and the Klamath River. Commercial farms on refuge land receive water even when adjacent refuge wetlands are forced to go dry.

2. Commercial farming uses critical refuge lands that should be used for wetland and wildlife management. Eighty percent of the basin's wetlands have been drained for commercial agriculture. Keeping historic wetlands on our refuges drained to lease for commercial farming is incompatible with the purposes of our National Wildlife Refuges and a violation of public trust.

3. Commercial farming uses refuge land that could be used to store water naturally for refuge purposes. The refuges need an independent secure source of water. Up to 100,000 acre-feet of water could potentially be stored naturally on refuge land currently leased for commercial agriculture.

4. Phasing out commercial farming on the refuges is the logical place to begin reducing the irrigation season water demand of the Klamath Project (a necessary step to solve the basin's water crisis). Eliminating lease-land farming on the refuges could save up to 50,000 acre-feet (16 billion gallons) of water during the irrigation season thereby reducing Klamath Reclamation Project irrigation water use by approximately 10%. This reduction could be achieved on land already owned by the federal government and would reduce the need to purchase private lands in order to reduce demand.

5. Phasing out commercial farming on the refuges would save taxpayer dollars. The federal government has in the past paid out more money per acre to Klamath Project farmers not to irrigate each year as part of a water bank than it receives from leasing refuge land to farmers to irrigate. The government could save money in meeting water bank requirements by simply not renewing leases for refuge lands for irrigated agriculture when the current leases expire.

6. Leasing out refuge lands for commercial farming unfairly competes with Klamath Reclamation Project landowners who lease their private lands for commercial farming.

7. Row crops such as onions and potatoes that are grown on refuge lands leased for commercial farming provide little or no benefit to wildlife. Even waste grain from left over grain harvests on refuge land provide only about one-tenth to one-half the food per acre as wetlands and are used by only a small number of species.

8. Heavy use of pesticides known to be harmful to wildlife are used on refuge lands leased for commercial agriculture including known carcinogens, neurotoxins, and endocrine disruptors. Some of these pesticides are so toxic EPA rules prohibit human entry into the treated fields for 24 to 72 hours after treatment.

9. Commercial farming activities (e.g. tilling, planting, mowing, cultivation, irrigation, harvesting, and pesticide/fertilizer applications) destroy nests and kill wildlife.

10. Managing the commercial farming activities on the refuges uses up time of refuge personnel and funds that should be used to manage the refuges for wildlife purposes.

11. Commercial farming on the refuges impairs water quality, while returning the lands to wetlands, especially in the area of the Klamath Straits Drain, could improve water quality.

Third, the DEIS does not evaluate how the KBRA institutionalizes and attempts to lock in commercial farming on these refuges, and how it could undermine the current CCP process for these refuges. Section 15.4.3 A. on page 100 of the KBRA requires all non-federal parties to support continued commercial farming on 22,000 acres of Tule Lake and Lower Klamath National Wildlife Refuges. This KBRA provision, as well as the KBRA subsidy provisions discussed in pages 7 to 12 above, promote and create an agency reliance on commercial farming of these important refuge lands, essentially institutionalizing this harmful practice for 50 years (Section 1.6 on page 5 of the KBRA provides that the term of the agreement and contractual obligations to support commercial farming on the refuges is 50 years). These KBRA provisions and legislative approval of the KBRA will put intense pressure on Interior to continue harmful commercial farming on the refuges and will undermine a fair evaluation of the compatibility of commercial farming on these refuges during the CCP process. Because commercial farming is so harmful to these critically important national wildlife refuges, and because alternative refuge management offers significant opportunities for refuge and basin restoration, these KBRA impacts and on the refuges and refuge management alternatives need to be thoroughly analyzed.

Both the National Wildlife System Improvement Act of 1997 and the Kuchel Act, make it clear that wildlife conservation and waterfowl management are the primary purposes of the refuges, and that any commercial farming activity must be consistent and compatible with these primary purposes. In fact, the large scale commercial farming that occurs on these refuges can no longer be considered compatible with refuge purposes, especially in light of current water shortages and the reduction of wetlands in the basin and throughout the Pacific flyway. The DEIS should discuss the requirements of the National Wildlife System Improvement Act of 1997 and the Kuchel Act, and how they could and should limit commercial farming through the CCP process or otherwise. This should be discussed as part of the no action baseline in the DEIS and is not.

The Realization of the KBRA Water Allocation to Lower Klamath NWR is Doubtful

The whole crux of the DEIS's conclusion that the KBRA is beneficial to the basin's national wildlife refuges is the assumption that the KBRA refuge water allocation will improve the refuges' water situation. First, under the KBRA, Tule Lake NWR would get the same water allocation it currently gets under existing contracts and biological opinions for the listed suckers that inhabit the refuge, and the KBRA just reflects this. Second, the KBRA's water allocation for Upper Klamath Lake NWR is not likely and is somewhat illusory, while the KBRA forecloses the best means of achieving a better and more secure water future for this refuge. In this regard, the DEIS fails to analyze the actual likelihood that the KBRA water allocation to LKNWR will ever become effective, or if it does become effective whether other KBRA provisions diminish the potential benefits of such an allocation.

The KBRA's Lower Klamath Lake NWR water allocation does not become effective unless and until a number of difficult-to-satisfy conditions are first met. These conditions include: 1) Regulatory assurances under the ESA that would guarantee water deliveries to Klamath Project irrigators at a level that current ESA regulation would not allow (In other words, this condition can only be met if the ESA is undermined – another factor the impacts of which the DEIS fails to analyze); 2) Final judgments in state courts confirming or validating the water allocation (if individual irrigators should object, this may not be achievable); 3) The deadline for implementing the On-Project Water Plan has passed (this could be as late as March 1, 2022 – Section 15.3.8A, Page 97 of the KBRA); 4) Timely publication of a notice by the Secretary of Interior indicating a number of other conditions have been met, including very substantial funding, and completion of dam removal or volitional fish passage; and 5) The acceptance by the Adjudicator or court that might then be handling the Oregon water rights adjudication (Oregon has made it clear it is not obligated to accept the allocation.). See Sections15.3.1 A, 15.3.4 A, 15.3.8A and 22.12 of the KBRA.

The DEIS needs to discuss these conditions and analyze whether the refuges would be better off with a different alternative to address its water needs, rather one that might never occur or not occur for many years, while harmful KBRA provisions go into affect immediately on passage of federal legislation approving the KBRA. In addition, even if the KBRA allocation becomes effective, the water allocated will be taken away by other KBRA provisions as discussed below, while some of the best tools to improve its water situation will be essentially eliminated as possibilities for the next 50 years as discussed below.

The KBRA Places a Heavy Burden on Lower Klamath NWR Wetlands in Times of Water Shortage

Lower Klamath NWR's water shortages are typically most acute in the drier years and the KBRA doesn't change this. In fact the KBRA locks in a drought year response that reduces the refuge's already low KBRA dry year allocation of 48,000 acre-feet down to 24,000 acre-feet and then possibly lower to zero (Section 15.1.2 F). (In this regard it should be noted that a prior biological opinion indicated a minimum of 32,000 acre-feet is necessary just to support the waterfowl food base of the approximately 1,000 bald eagles that over winter in the basin.) These drier year and drought year cutbacks to water delivered to Lower Klamath NWR wetlands are required under the KBRA without first requiring cutbacks in water delivered to irrigators commercially farming National Wildlife Refuge land. This is most likely in violation of the Kuchel Act and National Wildlife Refuge System Improvement Act of 1997. There was a move at the end of the Clinton administration to enforce these laws by first requiring reductions in commercial farming on the refuges to avoid cutting back water deliveries to the refuges. Ironically, Section 15.1.2G (iv) of the KBRA does allow the On-Project Water plan to limit deliveries to these refuge leaselands to meet water needs on private farms, but not to meet refuge needs. The DEIS should discuss whether these KBRA provisions are in conformance with the National Wildlife Refuge System Improvement Act of 1997.

These dry year cutbacks are not discussed or analyzed in the DEIS, though the KBRA requires these cutbacks as a first response to droughts. The DEIS should analyze how often and to what extent the refuge allocation would be reduced under the KBRA to meet

current EIS required river flows and lake levels. The fact is, that the on-project water limitation/guarantee to on-Project farmers is still so high that in order to meet current on-Project water allocation and ESA flow requirements in drought years, water deliveries to LKNWR will still be severely cut and will be cut to zero in some drought situations. Neither the KBRA nor the drought plan that has been developed explain how the irrigation target, refuge target, and current ESA Klamath River flow requirements in drought years can be met. The DEIS needs to discuss the impacts to the KBRA LKNWR water allocation in drought years, and the need to meet current ESA flow requirements.

Other KBRA Reductions in Lower Klamath NWR Water Allocation

In addition, Section 15.1.2 E (iii) of the KBRA sets forth other situations that would also reduce the allocation of water to Lower Klamath NWR, including reducing the irrigation season allocation by one-acre foot for each acre placed in walking wetlands, whether the walking wetlands are on refuge or private lands, and regardless of how much water is actually delivered to the walking wetlands; refilling Tule Lake sumps after intentional drawdowns; and conveyance losses at Anderson-Rose Dam and through the North canal. The impact of these reductions, especially those related to the walking wetlands program, should be carefully evaluated. The KBRA penalizes Lower Klamath NWR for any walking wetlands, by reducing the water allocation to Lower Klamath NWR wetlands by one-acre foot per acre of walking wetlands (KBRA, Section 15.1.2 E (iii) e.). Water will be withheld from Lower Klamath NWR at a rate of one-acre foot per acre of walking wetlands, regardless of how much water is applied to the walking wetlands, and regardless of whether it is more or less than would have been applied if the land was farmed. Lower Klamath NWR is even being penalized where private walking wetlands are created under the program to increase the value of farming on private lands. Though the private wetlands will provide some benefit to waterfowl, public wetlands on a national wildlife refuge would suffer, in order to temporarily create wetlands on private lands for the private landowners' benefit, all at taxpayer expense. This is poor public policy and should be discussed in the DEIS. Though the KBRA does not provide for any specific amount of walking wetlands, expansion of that program under the KBRA could have dramatic impacts on LKNWR. In addition, because walking wetlands are temporary and will be returned to farming in the future there are many wildlife species that will not benefit from rotating wetlands. For many species keeping the wetlands, whether seasonally or permanently, in the same place, are essential for their success.

The KBRA limits Lower Klamath NWR from improving its water situation and eliminates the best tools to secure water for Lower Klamath NWR

Lower Klamath NWR's water needs based on current refuge management goals are equal to 60,000 acre-feet during the irrigation season and 35,000 acre-feet in the winter. Because the refuge's water rights for refuge wetlands have a priority date of 1908 and the Klamath Reclamation Project has a 1905 priority date for irrigation, Lower Klamath NWR wetlands have suffered recently, especially in the drier years. Under the KBRA, the irrigation season allocation is 60,000 acre- feet in the wetter years and then is progressively diminished to 48,000 acre-feet as water year types get drier, with a dramatic additional reduction in drought years. Even in the unlikely event the water allocation in the KBRA for Lower Klamath NWR materializes, it is not the full amount needed in many years, and the KBRA would limit LKNWR to this less than ideal

allocation for the next 50 years (In this regard the USFWS is required to also limit its reserved water right for the refuge to this allocated amount).

Further, the KBRA has language that could be interpreted to limit the ability of Lower Klamath NWR to do better in drier years, or expand its wetlands in wetter years. Section 15.1.2 E iii (e) provides that the allocation to Lower Klamath NWR shall be reduced by any delivery of surface water through Reclamation facilities from other delivery points. This could limit the ability of the refuges to increase their water supplies by developing other water sources by purchase, lease, or storage. It should be noted that under the KBRA, the Project irrigators guaranteed water from the Klamath River is not reduced if they find or develop alternate sources of water, but the refuges are not allowed to do better by developing or purchasing alternate sources if Reclamation facilities are used to deliver the water. In addition, Sections 18.3.2 B and 15.1.2 E (ii) of the agreement also reduce, if not eliminate, the possibility of storing water on the refuges for increasing refuge water supply. Section 18.3.2 B predetermines how all new storage should be allocated regardless of where it is developed and refuges are not identified as a priority to receive any newly stored water. Section 15.1.2 E (ii) reduces irrigation season deliveries to Lower Klamath NWR by any amount stored on the refuge in excess of the 35,000 acre-feet wintertime allocation.

The DEIS does not discuss these ramifications of the KBRA on LKNWR, and it does not account in its no action alternative for developments that will occur even without the KBRA that will improve the current refuge water situation. The administrative determinations in the Oregon Klamath Basin water adjudication are about to be completed and the State of Oregon will soon be able to regulate junior water users to meet refuge reserved water rights, which does not occur now. Increased power rates will make commercial farming on Tule Lake NWR less economical, and should incentivize water conservation and generate support for a federally funded irrigation water and/or land purchase program with willing sellers.

In addition, under the National Wildlife Refuge Systems Improvement Act of 1997, the Secretary of Interior is required to secure needed refuge water supplies. Once the Oregon adjudication is complete the US Fish and Wildlife Service (USFWS), could and should, under the NWSIA, require the 1905 priority dated water rights associated with the refuge lands farmed for commercial agriculture be delivered to refuge wetlands rather than for irrigating 22,000 acres of refuge land for commercial farming. In fact, by locking in leaseland farming and by fixing the water allocation between on-Project irrigation and the refuges for the next 50 years, the KBRA would eliminate the best way to give water security to the refuges, which would be to phase out commercial farming on the refuges and use those lands to store winter water, and use the water rights associated with those lands for refuge purposes. The DEIS should discuss how the KBRA limits Interior's ability to comply with the National Wildlife Refuge Systems Improvement Act of 1997.

Upper Klamath National Wildlife Refuge Will Still Periodically Go Dry.

In addition to adverse impacts caused by the KBRA to Lower Klamath Lake and Tule Lake National Wildlife refuges, the KBRA will also negatively impact Upper Klamath National Wildlife Refuge. Water for Upper Klamath National Wildlife Refuges is dependent on the lake levels in Upper Klamath Lake. When lake levels drop below an

elevation of 4,140 feet, refuge wetlands begin to go dry and when lake levels reach 4,139 feet, all 14,000 acres of marshes in Upper Klamath NWR will be dry. Because of the water guarantees to Project irrigators in the KBRA, Upper Klamath NWR wetlands will be greatly diminished in late summer and fall in most years and completely dry at those times in dry years, due to irrigation diversions from Upper Klamath Lake to Project irrigators. This is supported by the DEIS by the following statement:

Based on modeled water elevations for future years, water elevations in Upper Klamath Lake would be low enough to leave refuge wetlands dry during the fall migration period (September-October) in 82 percent of years with implementation of the KBRA as compared to 68 percent of years under the No Action/No Project Alternative (USFWS 2010). Thus implementation of the KBRA would actually be an adverse impact compared to the No Action/No Project Alternative, if no other measures are taken. p. 3.5-69

The DEIS should analyze alternatives that improve the situation in Upper Klamath Lake and the Upper Klamath Lake NWR. Not only is the refuge adversely affected but so are water quality and other aquatic resources. The DEIS does not discuss the water quality impact from dewatering refuge and other wetlands around Upper Klamath Lake. When dewatered and exposed to the sun the peat soils are broken down and when rewetted phosphorous and other nutrients that were locked in the soils are released. The DEIS should carefully analyze the extent this contributes to water quality problems in the basin.

Failure to adequately or accurately address KBRA impacts to Aquatic Resources and Water Management

A major failing of the KBRA is that it is not an agreement designed to ensure that fish receive a minimum amount of water to meet their biological needs or even to receive what ESA flow and lake level requirements currently require. The KBRA sets no specific minimums or water allocation goals for fish. It is an agreement designed to ensure a specific amount of water for On-Project irrigators first, with fish left to make do with whatever is left over. In fact, the predicted river flows under the KBRA do not meet current ESA flow requirements, and show that under the KBRA flow levels could fall below levels that precipitated the 2002 fish kill. The DEIS fails to discuss or analyze whether current EIS flow requirements can be met under the KBRA, and what the impact is of failing to meet these requirements. Instead, the DEIS minimizes and avoids a meaningful discussion of the potential impacts of the KBRA on flows by twice asserting that:

> "Minimum flows may change in the future. Hydrologic modeling assumed that the Drought Plan would include a minimum flow of 800 cfs (DOI 2011). The final Drought Plan or future ESA actions could change the minimum flows; however, these assumptions reflect the best available information at the time of the modeling. (Footnote, pp. 2-19 & 3.8-19)"

Though hydrologic modeling may have made the assumption that a minimum flow of 800cfs would be provided in the Drought Plan, the Drought Plan has been released and no such minimums are included. In fact, the KBRA makes it clear that even the predicted

flows are not guaranteed and that there are no water guarantees or minimum stream flow levels or lake levels for fish (including three fish species listed under the Endangered Species Act) in the KBRA. This is not discussed in the DEIS.

In analyzing the impact of the KBRA on fish and other aquatic resources, the DEIS mainly focused on the KBRA Water Diversion Limitations and the On-Project Water Plan. The DEIS concluded that based on anticipated improvements in water quantity and water quality, from implementation of Water Diversion Limitations and On-Project Water Plan the KBRA would be beneficial for fall-run Chinook salmon, spring-run Chinook salmon, steelhead, Pacific lamprey, redband trout, and shortnose and Lost River suckers, and for coho salmon, except those in the Trinity River population units, where they would be no change from existing conditions. (Pages 3.3-142 and 3.3-142) The anticipated water quantity and water quality improvements from the KBRA asserted in the DEIS were based on the conclusion that the KBRA limits on specific water diversions within Reclamation's Klamath Project would protect flows in the mainstem, and that groundwater monitoring plan and restriction on pumping to no more than 6 percent of flows in the Klamath River upstream of Copco 1 Dam would protect flows and improve water quantity. These conclusions are not supportable for the following reasons:

1. Current ESA regulation and fulfillment of the federal government's tribal trust responsibilities offer more protection to flows and lake levels than the KBRA, which attempts to undermine these protections by requiring signatory Tribes to waive enforcement of their water rights up to the On-Project irrigators water limitations/guarantees, by foregoing federal government enforcement of non-signatory Tribes water rights or tribal trust responsibilities up to the On-Project irrigators water limitations/guarantees, and by requiring all KBRA parties to support ESA regulatory assurances at the guaranteed level of diversion for On-Project irrigators. The KBRA does not attempt to meet ESA water requirements for fish in Upper Klamath Lake or the Klamath River or the federal government's tribal trust responsibilities, but instead tries to remove obstacles to providing water security to On-Project irrigators at the expense of fish and wildlife. The DEIS needs to highlight current flow protections and responsibilities and how the KBRA impacts them, including the impact on streamflow and lake levels of filing a stipulation in the Oregon Water Rights adjudication that will limit enforcement of tribal water rights .

2. A careful analysis will show that the water limitations/guarantees for On-Project irrigators is set too high and will not balance the basin's water budget without undermining flows and lake levels needed by fish. The KBRA water guarantees for the Klamath Project Irrigators in wet years would deliver more water to the irrigators than they typically used historically in wet years, and in dry years would deliver more water to the irrigators than allowed under current Endangered Species Act protections for coho salmon, and tribal trust protections that the federal government should be enforcing. The DEIS should examine the impact of the limitations on providing for and meeting ESA flow requirements and tribal trust responsibilities.

3. The DEIS does recognize on page 3.3-142 that: "Reduced surface water deliveries associated with the diversion limitations could result in the increased use of groundwater for irrigation supply." But the DEIS discounts the possible impacts of increased groundwater development because of the 6% restriction in spring flow reduction to Klamath River springs, without assessing what the impact would be to flow and water quality if in fact all monitored springs were actually reduced by 6%. As discussed previously on page 7 to 12 the KBRA actually facilitates groundwater use, any increase of which has negative impacts that should be assessed. Also, as discussed previously, the potential impacts of groundwater development in the Lost and Tule Lake basins are enormous and are not discussed. The DEIS fails to analyze these potential impacts entirely.

4. Because the KBRA water plan has not yet been developed, all conclusions that this plan is beneficial are premature and without basis. However, the fact that there are no sideboards on the plan and the fact that parties to the KBRA are required to support the On-Project water plan as developed by Project irrigators without oversight, means the KBRA should analyze the potential impacts of a plan that does not actually reduce On-Project water demand in dry years, but that takes the same amount of water, but from different sources, including groundwater, either shifting the impacts to another basin or making it more difficult to determine the impacts to the Klamath River and Upper Klamath Lake. Even with the restrictions on springs in the Klamath Basin, this could have severe detrimental effects to the Lost River Basin springs and aquatic resources, existing groundwater users, and even on Klamath River flows. The DEIS must examine these potential impacts. The yet to be developed water plan could also result in a poor investment that does not advance water balance in the basin and ends up being an irretrievable and irreversible commitment of resources.

5. The KBRA also lacks any clear measurable goals or standards for fish, and there is no clear trigger or clear path of action under the KBRA to reopen the diversion limitations if it turns out the fish are still doing badly or populations are not recovering (Section 1.3). The weak KBRA goals in respect to fisheries and the strong specific goals in respect to irrigation put fish at a tremendous disadvantage. For instance, the agreement states that one of the goals is to establish reliable water supplies for agriculture (Section 1.3.ii), and there are also specifics elsewhere in the KBRA on the amounts of this supply. However, there is no stated parallel goal to establish a reliable water supply for fish. The goal stated in the KBRA for fish is the following: "*restore and sustain natural production and provide for Full Participation in Harvest Opportunities of Fish Species throughout the Klamath Basin*" (Section 1.3.i). This is an illusory standard. By failing to provide any measurable level of restoration or sustained natural production, this illusory standard may mean nothing more than sustaining natural production to avoid extinction. Likewise *to provide for Full Participation in Harvest Opportunities of Fish Species throughout the Klamath Basin* does not in anyway indicate what level of harvest opportunities one is trying to achieve. One just gets to fully participate in whatever harvest opportunity might exist. These are meaningless standards for fish.

6. The DEIS fails to address the fact that there are no guaranteed minimum flows, no guaranteed bucket of water to allocate or shape for fish, and no clear trigger or path of action if the predicted flows or environmental bucket of water does not materialize. This

is a huge deficiency in the DEIS. The risk of shortfalls in predicted flows is all on the fish, as is the risk of the predicted flows being enough water for fish. The predicted flows often do not match Hardy flows, which are currently deemed the best available science. In 90% exceedence years, the predicted bucket of fish water, even if it does show up, is much less than the total bucket of fish water under Hardy and the current Biological Opinion. In fact the KBRA predicted bucket of water is less than the total bucket of water under Hardy in all years except the very wettest (10% exceedence). The irrigation limitations are set too high, leaving too little water left over for fish to meet both the needs of the Klamath River and Upper Klamath Lake. With climate change the risks the KBRA places on fish are even greater. The DEIS should evaluate these risks but does not.

7. The KBRA predicted flows are clearly insufficient in drought situations, yet only a vague Drought Plan with no defined flow minimums is required by the KBRA (Section 19.2). Though a drought plan has now been developed, it contains no minimum flows or lake level goals or requirements and the plan elements remain as vague as the KBRA requirements. Moreover, the KBRA only explicitly allows for changes in the diversion limitations/guarantees in extreme droughts (See Section 19.2.2.B.v). Extreme droughts are defined as conditions that have only occurred twice in the last 40 years so any changes to diversion limitations/guarantees would only occur in exceptional circumstances. The KBRA's predicted flows are less than what is needed for fish in many more years than extreme drought years, yet the KBRA does not even define what other conditions would be covered. The drought plan also allows for a waiver of the groundwater standards in an extreme drought, which could adversely affect flows. This also highlights the fact that if the irrigators choose to have significant groundwater development in their water plan to replace the water they will no longer be diverting from the Klamath River, then groundwater may well not be available in an emergency. The DEIS also fails to analyze the huge potential on-going costs of a drought plan given the water diversion limitations have been set so high.

8. The KBRA predicted flows are shaped to create unnaturally low flows in the late fall and winter. This could be particularly harmful to ESA listed coho salmon adults returning to spawn in November and December. The DEIS should discuss the impacts of such an altered hydrograph. The tradeoff is to try and maintain higher spring flows for out-migrating juveniles, but this trade-off is made necessary because the KBRA diversion limitations are set too high.

9. As acknowledged in the DEIS, much of the KBRA restoration work, including Upper Klamath Lake restoration will occur with or without the KBRA and the KBRA does not really add to the baseline here.

10. The DEIS should also examine and discuss the modeling assumptions used to generate the KBRA predicted flows. In particular, the DEIS should examine the following assumptions and the risk implications they have for fish:

a. Off-Project Water Use Retirement Program Assumptions.

The model assumes 30,000 acre-feet of new water being contributed from the Off-Project area (in this case Off-Project refers to irrigated lands above Upper Klamath Lake that are not part of the Klamath Reclamation Project). The KBRA, however indicates that this

amount will be reduced by the difference between any reductions that have already occurred since 2001 less any new water surface water rights after 2001. This amount may be small, but it has not yet been quantified so that we do not know the extent to which the 30,000 acre-feet amount may be reduced.

As of yet specific lands have not been identified, specific willing sellers have not been identified, and funding for a land and/or water retirement program is not in place. In addition, because of return flow issues, there are assumptions that go into how many acre-feet of additional inflow is actually achieved with the purchase of each acre-foot of water. Further, protective mechanisms to protect the retired or purchased water instream are not yet in place.

Though the benefits from this Upper Basin water retirement are assumed in setting Klamath Irrigation Project delivery limits, Project irrigators are granted assurances against future curtailment of water use as long as they are at or under their limits even if these increased inflow assumptions are not met. Even if the assumptions are eventually met there will be an interim period of as yet unidentified length in which they are not. The DEIS is deficient in failing to analyze these issues.

b. Increased Upper Klamath Lake Storage Assumptions.

The DEIS and KBRA assume a net 107,700 acre-feet of additional storage in Upper Klamath Lake, before accounting for evapotranspiration. This additional storage is assumed to come through reconnection of drained and diked former wetlands to Upper Klamath Lake. The specific projects include: Williamson River Delta (owned by TNC – TNC has removed the dikes on two-thirds of its property, the remaining land is to be flooded by 2009), dike removal to join Agency Lake Ranch (owned by BOR), Barnes Ranch (recently acquired); and Wood River Ranch (owned by BLM) to Upper Klamath Lake.

This assumption of additional storage needs to be carefully analyzed and scrutinized. For example, Agency Lake Ranch is already contributing additional water by being operated as a pump storage facility (it is unclear to us how this is treated in the model). If the water contribution that Agency Lake Ranch is currently making is reflected in the model and counted in the amount of water left over for fish it needs to be subtracted from the 63,700 acre feet of additional water that is being added back in for this project so that it is not double counted. If the dikes to Agency Lake Ranch are opened, it can no longer be operated for pump storage, and the pump storage contribution will be gone. This is particularly important because we now know that even with the Barnes Ranch addition (which is adjacent to Agency Lake Ranch), the combined acre-feet of active storage created by opening the dikes to these two ranches will actually be less than the acre-feet currently contributed by Agency Lake pump storage operations alone. (The pump storage operation on Agency Lake Ranch probably cannot be continued much longer because of water quality problems with its discharge into Upper Klamath Lake and the lack of screening on Sevenmile Creek.) It should be noted that the KBRA provides On-Project irrigators with assurances whether additional lake storage is achieved or not, and the KBRA allows On-Project irrigators to be increase their irrigation delivery cap if additional storage beyond these projects is brought online or at the time dams are removed. The DEIS must closely examine these assumptions and KBRA impacts.

c. Klamath Straits Return Flow Assumptions.

In the KBRA model that predicts flows, the return flows from the Klamath Project are part of the flows observed at Iron Gate Dam as the return flows enter the Klamath River through the Klamath Straits Drain above the dam. The KBRA water plan may reduce these return flows, thereby diminishing some of the hoped for benefits of the diversion limitation. Again the risk is on the fish because no minimum flows or environmental bucket has been guaranteed.

d. Water Use Time Steps and Real Time Water Use Assumptions.

The KBRA assumes irrigation water use based on a certain rate of water use during different time steps throughout the irrigation season. The risk of the seasonal rate of actual irrigation water use deviating from the modeling inputs is again on the fish. To insure that the predicted flows for fish are actually available at the times the water is needed there must also be an agreement limiting the rate of water use in different water year types to a level that will allow the predicted flows to be met. In other words if the irrigators are allowed a total duty of 385,000 acre-feet during the irrigation season of a wet year, the model assumes the duty is spread over the irrigation season in a particular manner, but does not account for a possible shifting in the timing of use that could have a very large negative impact on flows during any such times. The KBRA fails to place limits on how much water is used in different timesteps, and these impacts should be discussed in the DEIS.

e. Eastside Demand Assumptions.

The KBRA predicted flows are based on an assumption of no change in wintertime diversions from Upper Klamath Lake or in irrigation season diversions from the Eastside Delivery Area of the Project (Clear Lake, Gerber Reservoir and the Lost River) that would affect the amount of storage in Upper Klamath Lake or in Klamath River flows.

Wintertime diversions can limit the ability to utilize the full storage capacity of Upper Klamath Lake in drier years, and could have as direct an impact on water available during the irrigation season as if it had occurred during the irrigation season.

In respect to the Eastside Delivery Area, if irrigation demand should increase in that area during different water year types, or if Eastside water is used to supplement decreased diversion from the Upper Klamath Lake Delivery Area then it could impact river flows because the Eastside is connected to the Klamath River via the tunnel through Sheepy Ridge and the Lost River Diversion Channel, and the Eastside currently contributes to Klamath River flows. Without the KBRA restricting Eastside diversions or groundwater development on the Eastside at specified levels in different water year types to assure a continued contribution from the Eastside to Klamath River flows, the model's flow predictions could end up being an overestimate, and the DEIS should note this.

f. Assumption that New Groundwater Development will not Affect Streamflows.

The states of Oregon and California are still issuing new ground water permits in the basin, and the KBRA funds an On-Project plan that allows for new groundwater development for irrigation. The USGS study shows that groundwater and surface water are connected in most places in the basin. Even with the restrictions in the KBRA, there is a risk that any future groundwater development will affect Upper Klamath Lake levels

and Klamath River flows. The model does not take this into account and the risk is again all placed on the fish. The Kamman Hydrology & Engineering's study of the draft Basin agreement makes this same point. The DEIS fails to analyze these issues.

g. Assumption that Predicted Flow and Lake Levels will be Met and that the Predicted Levels are Sufficient.

By giving irrigators assurances of water deliveries at the contemplated levels, the risk of uncertainty falls squarely on the fish. As indicated above if some of the assumptions are incorrect the burden falls on the fish, plus the burden of the time lag to implement many of the natural storage and restoration projects falls on the fish. With climate change one can also expect a change in the hydrograph, the risk of such changes again falling on the fish. It is also uncertain that even if the predicted lake levels and river flows are achieved, these levels will be enough water to sustain and recover Klamath Lake and Klamath River fisheries, and in fact the predicted flows are often less than what the current science tells us is necessary. The DEIS fails to analyze these risks or the burdens of placing these risks on fish in the basin.

ADDITIONAL COMMENTS

Impacts to Upper Klamath Lake

The DEIS should discuss the historical importance of Upper Klamath Lake as a rearing area for salmon, and the impact of the KBRA's predicted low lake levels on salmon restoration in the Upper Basin.

Flow needs for Water Quality

The only way to meet TMDL's for the Keno reach of the Klamath River will probably be to require flow levels during the summer that are greater than the predicted flows from the KBRA, yet the parties to the KBRA support the Project irrigators getting regulatory assurances that protect them from any future water reductions. Also, there may need to be changes in Keno Dam operations to improve fish passage and water quality in the Keno reach, yet the KBRA requires, and the parties signing the agreement are required to seek legislation that requires Keno Dam to be operated by Reclamation to maintain water levels for irrigation diversion consistent with historic practices.

Social Justice

The KBRA requirement that the federal government not enforce tribal rights even of non-signatory Tribes is a substantial diminution in rights to affected Tribes and this diminution of rights should be discussed in the DEIS.

Irreversible and Irretrievable Commitment of Resources

The KBRA if approved by legislation and signed by federal parties will bind the federal government to a 50 year agreement greatly limiting the federal government's flexibility to respond to future needs and the potential impacts of the long duration of the KBRA should be discussed in the DEIS.

Compliance with Laws

The DEIS fails to discuss whether the KBRA provisions are in conformity with the Reclamation Reform Act of 1982 and the National Wildlife Refuge System Improvement

Act of 1987. In addition, the DEIS fails to discuss how the KBRA can meet current ESA flow requirements.

Errata

1. The DEIS states:

"In spring of 2001, the federal government announced there would be no deliveries of water from Upper Klamath Lake or Klamath River to Reclamation's Klamath Project due to Federal Endangered Species Act (ESA) concerns - the first time project water deliveries were not made at a Reclamation project (very limited deliveries occurred later in the summer)." ES-1

This statement though true does not accurately paint the full picture of water deliveries to Project irrigators in 2001. While some irrigators suffered during the drought, many were able to irrigate normally. In fact, the On-Project irrigators experienced only a 32% overall reduction in normal deliveries, while the water year was 46% less than normal. According to reports in *The Oregonian* at the time, roughly 200 Project farms saw no reduction whatsoever in water deliveries. ((Michael Milstein, "Clearing up water issues on Klamath Basin," *The Oregonian*, August 29, 2001)

The On-Project irrigators total normal water intake is approximately 450,000 acre feet (af) of water per year. Before the decision to reduce deliveries, the USBR's Klamath Basin Pilot Irrigation Demand Reduction Program had paid 162 irrigators $2.7 million to idle roughly 17,000 acres of irrigated land within the Project. This reduced demand by roughly 35,000 af, or 7% of total demand. Given this reduction, 415,000 af would have been "normal" in 2001. The Project received at total of 283,000 af of water from in 2001, or 68% of normal. Here are the numbers:

> 26%: On April 6th, Vice President Dick Cheney ordered 70,000 af released from Clear Lake Reservoir. In fact, the USBR spilled 107,000 af from Clear Lake at this time to compensate for losses to evaporation and rampant unregulated diversions along the Lost River delivery system (Jim Bryant, USBR). The USBR had no authority to release this additional 37,000 af.
>
> 18%: On July 24, Secretary of the Interior Gail Norton directed a 75,000 af release from Upper Klamath Lake. USBR officials actually released 76,000 af.
>
> 24%: Emergency wells authorized and funded after the federal decision produced up to 100,000 acre-feet of water for the Project. (Oregon Department of Water Resources)

2. The DEIS states:

"In 2008 and 2010, the United States Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration (NOAA) Fisheries Service, respectively, issued biological opinions on Reclamation's Klamath Project operations to better protect listed species. Project operations are governed in part by both opinions." ES-7 through ES-10.

This statement skips over the 2001 Biological Opinion and the court ordered flows from the 2002 Biological Opinion protecting the Klamath's same listed species – the 2001 Biological Opinion and the court ordered flows under the 2002 Biological Opinion

should be mentioned and explained. They provided better protection to river flows and lake levels than the 2008 and 2010 biological opinions.

3. The DEIS states:

"A Negative Determination would be a potential termination event for the KHSA and facilities removal would likely not proceed. The FERC relicensing process would resume." ES-18

In fact, a continued FERC process would most likely result in full or partial removal of the four lower dams because it is economically in PacifiCorp's interest to remove all or some of the dams.

4. The DEIS states:

"The key negotiated outcomes of the KBRA include mutually-beneficial agreements for the Klamath, Karuk, and Yurok Tribes not to exercise water right claims that would conflict with water deliveries to Reclamation's Klamath Project water users and for project water users to accept reduced water deliveries." ES-19

The water limitations to Reclamation's Klamath Project water users are not actually a reduction in water deliveries from the limits imposed by the ESA and the governments tribal trust responsibilities. It is actually an increase in water deliveries from that allowed under current regulation. It should also be noted that the KBRA also diminishes rights to non-signatory tribes in basin.

5. The DEIS states:

"Circumstances for threatened and endangered species in the Klamath Basin are not improving." ES-41

Actually, fish in the Basin have done better than they would have without ESA protection. This was very evident in 2002, when the federal government undermined the ESA by ignoring the best available science, and instead delivered too much water to Project irrigators, resulting in low flows and the worst fish kill of record. Litigation restored ESA required flows and now the KBRA is the next attempt to get around ESA regulation that reduces irrigation water deliveries to assure minimum flows and lake levels to benefit ESA listed fish. Also, a lot of restoration has been accomplished and will continue even without the KBRA.

6. The DEIS states:

"Improves base flows for salmonids, particularly in drought years, through KBRA Water Resources Program" ES-45

This statement is simply false. The KBRA provides no base flows for salmonids, and the predicted flows are often less than the ESA and Hardy tell us fish need.

7. The DEIS states:

"These conflicts have cost the United States an average of $100 million per year over the past ten years (Sheets 2011)." 1-13

This statement really needs further explanation and a breakdown of the costs. In addition, as the water limitations are set too high and ESA flows are not met by these

limitations, conflicts can still be expected and large expenditures will still be required during droughts to try and balance unsustainable water demands created by the KBRA.

8. The DEIS states:

"In the past few decades, however, Klamath Project irrigators and refuge managers have not always had their requests for water met during drought years because of the need to conserve water for fish in the Klamath River downstream of Iron Gate Dam and in Upper Klamath Lake." 1-15

Irrigators always received their water first until the 2001 BiOp for coho created the bookend with the sucker BiOp. The KBRA now attempts to return to pre-2001 conditions. The refuges still remain subservient to irrigators even under the KBRA.

9. The DEIS states:

"The KHSA was an outcome of the FERC's Alternative Dispute Resolution Procedures as outlined in the Energy Policy Act of 20057 (18 C.F.R. 385.601, et seq.) wherein the parties elected to set aside differences to reach resolution on a settlement that is in furtherance of the interests of all of the parties." 1-18

It should be noted that during much of the negotiation PacifiCorp was not even at the table, and FERC's Alternative Dispute Resolution Procedures as outlined in the Energy Policy Act of 20057 were co-opted to deliver a sweetheart deal (the KBRA) to Klamath Project irrigators, who had strong political ties to the Bush administration. Parties, other than PacifiCorp were required to agree to Klamath Project irrigator demands as a condition of staying in the negotiations. WaterWatch and Oregon Wild were inappropriately and involuntarily excluded from the process for not agreeing to support continued commercial farming on Lower Klamath and Tule Lake NWR's for the next 50 years.

WaterWatch will be closely evaluating the response to these comments. We appreciate the opportunity to comment.

Sincerely,

John DeVoe,

Executive Director

WATERWATCH

PROTECTING NATURAL FLOWS IN OREGON RIVERS

Memo on Top Foundational Concerns in Respect to the KBRA and KHSA

Dated: March 29, 2010

Citations correspond to KBRA Public Review Draft (January 7, 2010)

A. Top Foundational Concerns With KBRA Provisions

1. Water Balance/Water Plans/Drought Plan

a) The fact that there is no guaranteed minimum flows, no guaranteed bucket of water to allocate or shape for fish, or clear trigger or path of action if the predicted flows or environmental bucket of water does not show up is a huge deficiency in the KBRA. The risk of the predicted flows not being there is all on the fish.

b) The risk of the predicted flows being enough water for fish is also on the fish. The predicted flows often do not match Hardy flows which are currently deemed the best available science. In 90% exceedence years, the predicted bucket of fish water, even if it does show up, is much less than the total bucket of fish water under Hardy and the current court ordered ESA flows. In fact the KBRA predicted bucket of water is less than the total bucket of water under Hardy in all years except the very wettest (10% exceedence). We believe the irrigation limitations are set too high, leaving too little water left over for fish to meet both the needs of the Klamath River and Upper Klamath Lake. There is one endangered and one threatened species of sucker in Upper Klamath Lake, and the risk of there being too little water in the lake is also on these fish. In addition the predicted lake levels will periodically go low enough to completely drain all 14,000 acres of wetlands in Upper Klamath National Wildlife and other wetlands around the lake. The limitations on irrigation in the KBRA are not set low enough to balance other water demands.

c) It is acknowledged that the predicted flows are not enough in drought situations, yet no drought plan has been developed (Section 19.2). That means there currently is no means of assessing whether or not an adequate drought plan will be developed before support for the KBRA and legislation will be requested. The KBRA itself may limit the ability to negotiate a plan that will effectively deal with droughts because the KBRA only explicitly allows for changes in the diversion limitations/guarantees in extreme droughts (See Section 19.2.2.B.v). Extreme droughts are defined as conditions that have only occurred twice in the last 40 years so diversion limitations/guarantees would only occur in exceptional circumstances. The predicted

flows are less than what is needed for fish in many more years than extreme drought years, yet the KBRA does not even define what other conditions would be covered by a yet to be created drought plan. This is not acceptable. A drought plan should be developed to ensure specified scientifically based minimum flows for fish are met.

The drought plan also allows for waiving of the groundwater standards in an extreme drought, which could adversely affect flows. This also highlights the fact that if the irrigators choose to have significant groundwater development in their water plan to replace the water they will no longer be diverting from the Klamath River, then groundwater may well not be available in an emergency.

d) The KBRA lacks any clear measurable goals or standards for fish, and there is no clear trigger or clear path of action under the KBRA to reopen the diversion limitations if it turns out the fish are still doing badly or populations are not recovering (Section 1.3). The weak KBRA goals in respect to fisheries and the strong specific goals in respect to irrigation put fish at a disadvantage. For instance, the agreement states that one of the goals is to establish reliable water supplies for agriculture (Section 1.3.ii), and then there are also specifics elsewhere in the KBRA on what that supply is going to be, while there is no stated parallel goal to establish a reliable water supply for fish. The goal stated in the KBRA for fish is the following: *"restore and sustain natural production and provide for Full Participation in Harvest Opportunities of Fish Species throughout the Klamath Basin"* (Section 1.3.i) . By not stating the level one is attempting to sustain natural production at, it could mean to just sustain natural production to avoid extinction. Likewise *to provide for Full Participation in Harvest Opportunities of Fish Species throughout the Klamath Basin* does not in anyway indicate what level of harvest opportunities one is trying to achieve. One just gets to fully participate in whatever harvest opportunity might exist. We think these are meaningless standards for fish and put parties concerned with fish at a disadvantage under the KBRA.

e) The KBRA does establish a process to develop and implement a water use reduction plan for the off-Project irrigators in the Upper Basin (Section 16.2.2), but does not for the Klamath Irrigation Project, and it has no plan for water demand reduction in the Shasta and Scott Rivers. We have tremendous concerns over the $92.5 million funding allocation (line 66, page 8, Appendix C-2, and Section 15.2) to fund the development and implementation of a Project water plan that is to be developed and implemented by the irrigators, subject only to 60 day review and approval by the Bureau of Reclamation. Instead of being developed solely by the Project irrigators with no public oversight, the water plan should be developed by a federal agency with appropriate NEPA analysis and public oversight. The plan should actually have a goal of permanently reducing irrigation water demand to solve the basin's overallocation problem rather than allowing for shifting the demand to the Lost River, the Pit River, or back to the Klamath through groundwater development. A certain percentage of the funds should be spent on permanent water demand reduction, similar to the off-Project water use reduction plan in the Upper Basin. In addition, pre-agreement to provide millions of dollars for implementation of a Project water plan, before being able to assess specifically how taxpayer dollars will be spent is not a responsible commitment of federal funds. In addition, if the power fund is not fully funded, the KBRA allows Project

irrigators to allocate water plan funding to the power fund subsidy as a priority. (See Section 15.2.2A and Section 14.3.1)

A water use reduction plan for the Shasta and Scott similar to the off-Project Upper Klamath Basin plan is essential for basin restoration and no specific provision for such a plan in the KBRA is a serious restoration deficiency.

2. ESA/CESA

a) We acknowledge that the ESA is not specifically being waived, but we do believe the KBRA undermines the administration of the ESA because it requires support for regulatory assurances consistent with the diversion limitations/guarantees to irrigators without providing minimum flow protections for fish. See section 3.1.2, section 21.3, and section 21.3.1.B. The parties who sign the agreement most likely cannot initially challenge a biop that is consistent with the diversion limitations/guarantees and in fact would most likely be required to support one that does that. We believe the parties to the agreement will be supporting and may be required to support a biop that violates the ESA, leaving it to others to take appropriate legal action if in fact a biop should come out that does not provide protected flows or a protected bucket of water for fish based on the best available science. We know that the diversion limitations are set too high in dry years, and we know the ESA should require minimum flow protections. The KBRA puts tremendous pressure on NMFS and USFWS to come up with bi-ops that allows water diversions at the level set forth in Appendix E, and gives them cover to do so as non-federal KBRA parties are required to support those agencies in doing just that. (See Section 21.3.1.A and 21.3.1.B.ii.a.). A water deal should have been negotiated that will meet ESA requirements, instead of a deal that puts pressure on agencies and others to support a deal that does not.

The KBRA also invites NMFS and USFWS to rely on actions planned (but not funded) in the KBRA as a reason to conclude fish will need less water than the current biological opinion requires, and also invites them to deliver incidental take coverage based on the diversion limitations/guarantees (See Section 22.2.2 through 22.2.5). In fact this coverage is contemplated to even last beyond the 50 year term of the agreement (See the last sentence of 22.2.1).

b) The KBRA supports development of California legislation that will allow take of southern bald eagles, golden eagles, Lost River suckers, greater sandhill cranes, American peregrine falcons, and shortnose and Lost River suckers in the Lost River and Tule Lake Basins in California under California's Endangered Species Act (CESA) (Section 24.2). This could lead to setting aside existing CESA protections and highlights the concern that the KBRA will actually make matters worse in the Lost River and Tule Lake Basins.

3. Refuges

a) Section 15.4.3.A. on page 100 of the KBRA requires all non-federal parties to support continued commercial farming on 22,000 acres of Tule Lake and Lower Klamath National Wildlife Refuges. The purpose of this provision is to promote the continuation of commercial farming of these important refuge lands and to lock this in for the 50 year term of the agreement. Agreeing to support commercial farming on these refuges

undermines and unduly influences the Comprehensive Conservation Plan (CCP) planning process that will shortly be initiated for these refuges as required under the National Wildlife System Improvement Act of 1997. Commercial farming should be prohibited, as it is incompatible with refuge purposes and the purposes of the National Wildlife System Improvement Act of 1997. The support for commercial farming in the KBRA invites USFWS to determine commercial farming is compatible and consistent with refuge purposes and gives them cover if they do so. This harmful practice on two of the nation's most important national wildlife refuges should be phased out not locked in.

Phasing out commercial farming would not only provide additional wildlife habitat, it would reduce irrigation season water demand, allow for natural storage of winter water, and help improve water quality. It should also be noted that not only does the KBRA require non-federal parties to support commercial farming, but it subtly attempts to create a new management standard by requiring support for leaseland farming managed to "enhance waterfowl management while optimizing agricultural use and maximizing lease revenues" (Section 15.4.3.A.ii). This appears to give agricultural uses and maximizing lease land revenues equal weight to waterfowl management in managing refuge lands, and suggests that as long as you are doing something to enhance waterfowl management from the current situation, commercial farming somehow becomes consistent with waterfowl management. This conflicts with both the National Wildlife System Improvement Act of 1997 and the Kuchel Act, which make it clear that wildlife conservation and waterfowl management are the primary purposes of the refuges, and that any commercial farming activity must be consistent and compatible with these primary purposes. In fact, the large scale commercial farming that occurs on these refuges is not compatible with refuge purposes, and the KBRA makes it more difficult to challenge this incompatible use, especially if Congress should ratify and approve the KBRA and direct the federal agencies to sign it.

b) The KBRA locks in a drought year response that reduces Lower Klamath National Wildlife Refuge's already low dry year allocation of 48,000 acre-feet to 24,000 acre-feet and possibly lower (Section 15.1.2.F). (In this regard it should be noted that a prior biological opinion indicated a minimum of 32,000 acre-feet is necessary just to support the waterfowl food base of the approximately 1,000 bald eagles that overwinter in the basin.) These drier year and drought year cutbacks to water delivered to Lower Klamath NWR wetlands are required under the KBRA without first requiring cutbacks in water delivered to irrigators commercially farming National Wildlife Refuge land. This is most likely in violation of the Kuchel Act and National Wildlife System Improvement Act of 1997. There was a move at the end of the Clinton administration to enforce these laws by first requiring reductions in commercial farming on the refuges to avoid cutting back water deliveries to refuge wetlands. Ironically, Section 15.1.2.G.iv, of the KBRA does allow the On-Project Water plan to limit deliveries to these refuge leaselands to meet water needs on private farms, but not to meet refuge needs. There should be no cutbacks to LKNWR water deliveries in droughts or at other times without first cutting back irrigation water deliveries to refuge land that is being commercially farmed.

c) Though the KBRA gives Lower Klamath NWR a water allocation, it is not the full amount needed in many years, and the Settlement Agreement has language that could be interpreted to limit the ability of Lower Klamath NWR to do better in drier years, or

expand its wetlands in wetter years. Section 15.1.2.E.iii(5) provides that the allocation to Lower Klamath NWR shall be reduced by any delivery of surface water through Reclamation facilities from other delivery points. This would limit the ability of the refuges to increase their water supplies by developing other water sources by purchase, lease, or storage if delivered through Reclamation facilities. It should be noted that under the KBRA, the Project irrigators guaranteed water from the Klamath River is not reduced if they find or develop alternate sources of water, but the refuges are not allowed to do better by developing or purchasing alternate sources, even though under the National Wildlife Systems Improvement Act the Secretary of Interior is required to secure needed refuge water supplies. In addition, Sections 18.3.2 and 15.1.2.E.ii of the agreement also reduce, if not eliminate, the possibility of storing water on the refuges for increasing refuge water supply. Section 18.3.2 predetermines how all new storage should be allocated regardless of where it is developed, and refuges are not identified as a priority to receive any newly stored water, and Section 15.1.2 reduces irrigation season deliveries to Lower Klamath NWR by any amount stored on the refuge in excess of the 35,000 acre-feet wintertime allocation. Also, Section 15.1.2.E.iii sets forth other situations that would also reduce the allocation of water to Lower Klamath NWR, including reducing the irrigation season allocation by one-acre foot for each acre placed in walking wetlands, whether the walking wetlands are on refuge or private lands, and regardless of how much water is actually delivered to the walking wetlands.

It should also be noted that the KBRA requires a number of difficult to achieve conditions to be met before the water allocation to Lower Klamath NWR goes into effect.

d) The KBRA also promotes federal agency reliance on commercial farming on the refuges and builds a greater constituency for it by changing existing law. Section 15.4.4 B and Appendix A, Section H of the KBRA provide that approximately 60% of the net revenue from leasing refuge land for commercial farming will go to a Reclamation fund and applied to the benefit of Project irrigators, either by covering costs of maintaining and operating Keno and Link River Dams (a cost that should be born by Project irrigators), by reducing future capital costs of the Project or by subsidizing power costs to both on and off Project irrigators. By diverting these funds for these purposes, the KBRA will increase and broaden the political support for continuing commercial farming on these two national wildlife refuges at a time many have begun to question the practice. In addition 20% of the revenues would go to USFWS (the other 20% is to go 10% to Tulelake Irrigation District and 10% to Klamath Drainage District, the two irrigation districts, whose customers commercially farm the refuges). This provision will create an agency dependence on farming the refuges with both the Bureau of Reclamation and USFWS, which would make it harder to make the changes that are needed on these refuge lands. Parties to the KBRA are required to support federal legislation to implement this KBRA provision as it is inconsistent with existing law.

4. Power subsidy and special contracts

a) The KBRA provides over $50 million in power subsidies and preferential power rates from the Columbia River Hydropower System that will continue to subsidize draining refuge land for farming (See KBRA Sections 14 and 17, and lines 72 -75 on Appendix C-2). Federal legislation will also be necessary to implement these provisions, and the KBRA requires parties to support such legislation. There is no public policy

purpose for this subsidy. It provides an unfair competitive advantage over other nearby farmers and ranchers who just happen not to own lands in the Klamath Project or Klamath County, and encourages not only wasteful power use, but also wasteful water use as the power is used to pump water. Subsidized power in the Klamath Basin has contributed to the basin's water crisis and has also made it economical to drain wetlands on Lower Klamath and Tule Lake National Wildlife Refuges for harmful commercial farming on refuge land (At the California PUC hearing refuge personnel testified that the once the cost of power reached the market rate, draining refuge land on Tule Lake NWR for commercial farming would no longer be economical.) If such a subsidy is granted it should only be on the condition that commercial farming on the refuges be phased out.

b) The KBRA, in Section 15.4.2.A, modifies existing contracts to change the cost allocation of the D plant pumping by increasing the amount the USFWS has to pay and decreasing the amount the Tule Lake Irrigation District has to pay (this is shown to cost USFWS $170,000 per year, line 69, Appendix C-2). Since this would most likely violate current Reclamation law on cost sharing, Section15.4.6 of the KBRA attempts to circumvent the law by having the Secretary of Interior agree that the cost sharing agreements in the KBRA are not a "contract" as defined in the Reclamation Reform Act of 1982 (Public Law 97-293). This contract modification allows Project irrigators to use D plant pumping to drain and keep drained 15,500 acres of Tule Lake NWR so that the lands can be commercially farmed. In addition, under Section 15.4.4.A of the KBRA, existing Project irrigator debt to the United States for unpaid capital costs of the Project facilities is cancelled without even first determining the amount. This would be a very bad precedent without any public policy justification.

5. Implementing legislation

a) No KBRA legislation should have language approving, ratifying or confirming the KBRA or directing federal agencies to become parties to the agreement, though this is contemplated under the KBRA (See Appendix A, section A). It is only necessary to authorize federal agencies to implement the agreement and that implementation should specifically indicate that implementation must be consistent with and in compliance with all existing laws, rules, and regulations, including but not limited to the National Environmental Policy Act, the Endangered Species Act, the Clean water Act, the National Wildlife Refuge System Improvement Act of 1997, and the Reclamation Reform Act of 1982. It is not good policy to have federal agencies contractually committed to an agreement for 50 years. It would impede the ability of agencies to respond to changes and implement existing and future laws.

b) Appendix A, Section G of the KBRA requires support for expanding the purposes of the Klamath Reclamation Project to include fish and wildlife and other additional uses. Expanding the purposes is good, but by adding the following to the legislation it unnecessarily limits the benefits to fish, wildlife and refuges, and raises ESA concerns:

"The fish and wildlife and National Wildlife Refuge purposes of the Klamath Reclamation Project shall not adversely affect the irrigation purpose of the Project, *provided that*, the provisions regarding water allocations and delivery to the National Wildlife Refuges agreed upon in Section 15.1.2, including any additional water made

available under Section 15.1.2.E.ii and 18.3.2.B.V, of the Klamath River Basin Restoration Agreement are hereby deemed not to constitute an adverse effect upon the Klamath Reclamation Project's irrigation purpose."

This language is inconsistent with the concept that nothing is intended to modify the ESA. Managing the Project for fish and wildlife purposes to comply with the ESA can certainly be deemed to "adversely affect the irrigation purpose of the Klamath Project". In addition it could be interpreted to limit the refuges from improving on its water allocation except in very limited specified ways under the KBRA. The language is also not necessary and it is ambiguous and vague. There are any number of scenarios in which one can imagine someone raising the argument that the fish and wildlife and National Wildlife Refuge purposes are adversely affecting irrigation purposes. Presuming the intent was to make sure this did not affect the priority of water use we suggest the following provision in any legislation in lieu of the above:

> "The fish and wildlife purposes and national wildlife refuge purposes of the Klamath Reclamation Project shall not change the priority of use of Project water, which priorities shall remain subject to applicable state and federal laws."

B. Top Foundational Concerns With KHSA Provisions

1. Linkage with the KBRA

The KBRA has many controversial provisions and seeks $985 million in appropriations. It is not necessary for PacifiCorp's support for the KHSA. We believe linking the KBRA with the KHSA is very likely to derail needed KHSA legislation and/or implementation of the KHSA. Passage of legislation to implement the KBRA should not be a precondition to filing the Secretarial determination or to dam removal. In addition the KHSA is just a process that might lead to dam removal, but may not. If linked to the KBRA, many of the environmentally harmful provisions of the KBRA will already be in effect before we know whether dams will be removed or not.

2. Secretarial Determination

The KHSA and Appendix E legislation leaves the determination of whether dam removal is in the public interest to the discretion of the Secretary of Interior. This determination process is not necessary. It just delays the federal government's decision on whether or not it will commit to dam removal and creates another forum for PacifiCorp or any group that opposes dam removal to have an opportunity to block it. If the Secretarial determination comes back negative, then it will give PC lots of leverage in the FERC process and with the PUC's to keep the dams and recover the costs of any mandatory conditions. Instead Congress should determine in the legislation that the dam removals are in the public interest and authorize the Secretary to remove the dams and commence the necessary planning and environmental review processes to achieve dam removal, rather than delegate the public interest determination to the Secretary.

3. Preconditions and Exits/DRE

Though the KHSA could lead to dam removal, it has so many off ramps and preconditions that it makes dam removal less certain than it has to be. More of these preconditions should be satisfied upfront, especially since the KHSA is linked to the

harmful provisions of the KBRA. It would be terrible to be stuck with the harmful provisions of the KBRA and have no dam removal take place.

4. California Bond.

The KHSA has no provision that provides the needed California bond will not be packaged with environmentally harmful projects. Unfortunately, this is what has occurred in the current California bond. California bond funding is a condition of dam removal, putting KHSA supporters in a position of having to support more harmful provisions to get California bond funding needed for dam removal.

5. Interim Measures and Application of Existing Laws

The interim measures in the KHSA are inadequate, allowing PacifiCorp (PC) to continue to operate for at least the next decade in a manner that will continue to harm salmon. The agreement should require PC to immediately implement the non-structural operational requirements that are part of the mandatory conditions for a new license rather than essentially granting PC what amounts to a new 10 year or longer license with minimal conditions. In addition, PC should remain liable and its operations should remain subject to the CWA and the ESA in the interim (the KHSA contemplates giving PC ESA coverage during the interim). The feasibility of operating Copco I and Irongate at reduced pool levels to minimize temperature increases and toxic algae in the reservoirs during the interim should be explored.

6. State Water Quality Certification

State water quality certification processes should proceed during the interim so that these processes won't further delay the relicensing process if dam removal does not move forward.

7. FERC Annual Licenses and Suspension of Relicensing Process

The KHSA does not state any clear limitation on the number of annual FERC licenses that can be granted to PacifiCorp, or state clearly when the FERC relicensing process would start up again, if dam removal has not commenced by 2020. The KHSA is deficient for not stating a definite limit on the number of annual licenses and a specific date after which relicensing should again commence if dam removal has not yet commenced.

8. Delayed Commencement of Dam Removal

Even if there is a positive Secretarial Determination under the KHSA, no dams are to be removed under the KHSA before 2020 and maybe not for some time thereafter. The Klamath salmon are suffering now from these dams and waiting until 2020 or later to take action with no substantive change in operations during the interim puts salmon at risk.

KLAMATH DAM REMOVAL
DRAFT EIS/EIR HEARING
OCTOBER 25, 2011

PUBLIC TESTIMONY
ORLEANS, CALIFORNIA

MR. HARLING: Thank you. My name is Will Harling, W-i-l-l H-a-r-l-i-n-g. I'm the director of the Mid Klamath Watershed Council.

I was born on the Salmon River, born and raised there. When I was a kid, my brother and I, like many Native families around here, fished for salmon for subsistence. And it -- it wasn't really legal at the time, but there were a lot of fish in the river.

And over the course of my childhood and growing up into my teens, in the late '80s, we saw those fish runs drastically decline. And so, when I was looking for something to do with my life, I followed the reason why those fish runs declined, and it brought me to the Klamath River, and not just the Klamath River but what was going on upstream and, in particular, with the dams.

And so, today, through our small nonprofit, working with the Karuk Tribe and other federal and State agencies, we're doing restoration projects to restore fish habitat up and down the river. But what I believe and what I see is that those are just stopgap measures, while we're waiting for the big ticket items, the big

fix.

And in that case, we're looking at what we're supposed to be talking about here tonight, which is whether or not to remove four dams. And I will be submitting written comments later that talk about specifics and address specific questions that, hopefully, will be addressed in the comments.

But tonight, while everybody is here, I would like to read a poem, which I know is completely against what you requested of us, but --

MS. JONES: I didn't say that.

MR. HARLING: -- but, hopefully, will get at some of the deeper issues.

MR. STOPHER: I was wondering if you were going to read us a poem tonight.

MR. HARLING: Sorry for the repeat.

Settlement. I was the salmon, born from the stream that seeped from the crater where Mount Mazama once stood. Call me Ishyaat, spring salmon of old. We returned from the ocean in numbers untold, past Trinity, Ishi Pishi, over the Keno Reef, through Lake Ewauna and Klamath to the highest reaches of the Sprague, the Sycan, the Williamson, and Wood, when the river flowed free and the water was good.

Our flesh was the promise to the river people's

prayer. If they kept the balance, we would always be there. We would always be there if belief could contain the knowledge of salmon as deeply ingrained, as the love of the family and respect for all life.

But the settlers came and, in their hunger for gold, washed the mountains and valleys into the river's fold. Down at the lips, the canneries sprang up, where a killing could be made with a net and a club. Meanwhile, upstream, where the springs bubbled out, the water was ditched to keep the fields from drought. And oxbows, where beavers once engineered ponds, fell dry and dusty when the beaver was gone.

The next to go were the trees on the hills, where donkey machines whisked them to mills. The slash from the logging stoked a powerful blaze that baked the soil so hot, it all washed away, taking road crossings with it on its way down the creek and into the river of which I speak.

For I am the salmon, born from the stream that flowed from the crater where Mazama had been. I have been shaped by millennia past, by the river, itself, to whose stones I am cast. But the river runs hot, and there's disease in my guts, and I'm afraid we're dying from a thousand cuts.

There's still quite a scene, down at the lips,

eight gill nets deep as it crosses the spit. Miners are still dredging for occasional gold, muddying the refugia where salmon still hold.

And now, every year, farmers take a little more of the river down pipes that salmon restoration funds paid for. And fires are increasing in intensity and size. Now mountains unravel wherever a hard rain flies.

And as fish stocks balance on the brink of extinction, four dams still stand, blocking salmon migration to the Sycan and the Sprague, Williamson and Wood, where cold water still flows, though not quite as good.

That thing kind of stalled out. I don't know if you want me to stop talking or what.

MS. JONES: I think that's what it means. And I'm sorry, Will.

MR. HARLING: That's all right.

MS. JONES: Okay.

MR. HARLING: I'll put them in your box.

MR. LYNCH: Thank you, Will.

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October 26, 2011

Comments on the Klamath Facilities Removal Public Draft EIS/EIR

My name is Vivian Helliwell. I am the Watershed Conservation Director for Institute for Fisheries Resources (IFR), a non-profit with membership of fifteen commercial fishing marketing associations and Salmon for All. Member groups include fishermen's associations from Port San Luis, Morro Bay, Monterey, Moss Landing, Santa Cruz, Half Moon Bay, San Francisco, Bodega Bay, Fort Bragg, Humboldt County, Trinidad, and Washington State. As IFR, we are signatories to the Klamath Hydroelectric Settlement Agreement and the Klamath Basin Restoration Agreement.

Our ocean salmon seasons have been greatly curtailed over the last 20 years to prevent overfishing on available Klamath River salmon that mix with other salmon in the ocean. Known as "weak stock management," the closures are designed to allow maximum escapement of spawners each year to the Klamath River. Some years, salmon fishing has been closed off the entire California Coast to protect Klamath River stocks, with great economic impact to our coastal fishing communities, only to have returning salmon encounter deadly conditions after they enter the river to spawn.

In addition to the well-known death of tens of thousands of adult salmon in 2002, juvenile salmon are subject to great losses each year from poor water quality conditions in the river. Our fishing businesses, jobs, taxes, and coastal economy have taken the brunt of cumulative toxic water quality conditions and limitation on spawning areas caused by the Klamath River dams that are up for relicensing.

Our group estimates from the projections in the EIS/EIR, that, while increasing ten percent within the restricted Klamath Ocean Zone, fishing opportunity will double in areas further up and down the coast, due to the increased fishing opportunity on salmon stocks other than those from the Klamath.

We understand that the dam owner, Pacificorps, has a private property right to choose the less costly avenue of dam removal over the higher cost of re-licensing. Although there is additional work that needs to be done in the Klamath Basin outside the scope of the KHSA and KBRA, removal of all four dams and the water and restoration agreements that have been reached among many parties will go a long way toward restoring economic vibrancy to our coastal fishing communities.

Thank you.
Vivian Helliwell

Watershed Conservation Director,
Institute for Fisheries Resources (IFR)

We support Alt. 2. VH

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KLAMATH OFF-PROJECT WATER USERS ASSOCIATION

Secretary Salazar,Department of interior
Klamath EIR/EIS comments/ questions

Please answer and or address these concerns:

1. **Secretary Salazar's document we are commenting on is nearly 2,000 pages long. How can ordinary citizens be expected to have any in-depth understanding of this document in the short time period allowed. We need at least six months to study and have the needed understanding of this complex document and the far reaching implications. Destroying four dams and the possible environmental disaster cannot be rushed into.**

2. **The dam removal and KBRA may have started out as a possible solution to the water problems in the Klamath River Basin, but the final product does not deliver. Dam removal does not produce any additional water. It only takes water away from irrigated agriculture and gives it to fish. In my book, PEOPLE are more important than fish.**

3. **This entire process, supported and funded by the Department of Interior, mirrors the corrupt, biased and illegal process used in the San Joaquin Valley, shutting down hundreds of thousands of acres of the most productive farm land in the United States. The exact tactics used there are again being used here in the Klamath River Basin. Flagrantly biased, non-peer reviewed, so called "best available science", paid for by stakeholders in the dam removal and KBRA effort, is being used by Secretary Salazar to justify moving ahead on dam removal. I pray a Judge from Oregon will harshly reprimand Secretary Salazar as did U. S. District Court Judge Oliver Wanger. Presiding Judge Wanger gave a scathing reprimand to the Department of Interior calling their actions in the San Joaquin Valley as violating the law but also attempting to deceive the Court in justifying their actions. Again, this process is being repeated here in the Klamath River Basin.**

4. **Using known biased, faulty so called "best available science" such as the Stillwater Report and the economic study compiled by David Gallo, is at least highly inappropriate and at worst, illegal. The Stillwater Report was funded by American Rivers. David Gallo's study was paid for by Cal Trout and Prosper. These groups and or their Directors are signatories to both the KHSA and KBRA. Nothing like being TRANSPARENT!**

5. Using River Design as the lead in modeling and consulting aspects in the so called "science" seems to follow the government direction of using those with a proven track record of failure in their field. River Design provided modeling and consulting in both recent dam removal projects on the Rogue River. Both projects have a lot of OOPS resulting from dam removal. The Rogue River is a very clean river system compared to the Klamath River. Any type of OOPS in the Klamath Dam Removal will result in an environmental disaster of epic proportions.

6. Secretary Salazar's Report assumes there will be no adverse effect in allowing 22 million cubic yards of sediment, toxic or not, to freely flow to the Pacific. I am not allowed to put over 5 yards of rock or dirt in a river because of the harm it will do to the fish and their habitat. This massive amount of sediment can easily sterilize the entire river for 100 years or more.

7. Secretary Salazar is ignoring his own "expert panel " of six that stated in their June 16th, 2011, report that the entire dam removal and restorations **could boost salmon population in parts of the upper basin by 10%, only if all the other water quality problems were solved first**. Solving all the water quality problems would require reversing "mother nature's" natural occurring phosphorus that is prevalent in the entire upper basin. This panel also recognized that fish would still have to be trucked around Keno dam and Keno reservoir. One of the experts, Wim Kimmerer, an environmental research professor from San Francisco State, went as far to say **"I think there is no way in hell that they are going to solve the basin's water quality problems."** Wim Kimmerer also stated**," It doesn't seem to me like they've thought about the big picture very much."** This same panel said this entire process amounts to a huge **"experiment."**It is no wonder that dam removal supporters are doing everything possible to discredit or ignore Secretary Salazar's own "expert panel."

8. The cost of dam removal will be extremely expensive. Since rate payers will be paying for this cost, this will cause a large cost increase on electricity to rate payers, including homeowners and elderly. I am very concerned about how the rate payers and tax payers are going to afford this increase in electricity costs. The actual cost of dam removal is largely believed to be in excess of $3 billion and we will be the ones to pay the price.

9. It is unclear who will be liable for the removal of the dams. If the Federal government is going to incur the liability, then this cost, which will be huge, will be passed on to tax payers. Tax payers are already facing the daunting burden of repaying the national debt. When is the government going to stop spending tax dollars they do not have?

10. **The KBRA and KHSA are irrevocably attached, so you cannot sign onto just one agreement, you have to agree with and totally support both agreements.**

11. **The hydroelectric plants, which currently provide electricity, will be decommissioned with the dams. How will this electricity production be replaced? The proposed government off-set is significantly less than estimated cost of establishing new power sources. Who will pay this difference for establishing new, green power sources? How will this affect power rates, if rate payers are partially funding the establishment? I am concerned that we will not find an economical, environmentally friendly way to replace this lost green power source.**

12. **I do not think that alternatives to dam removal were explored. Such alternatives may include improved fish ladders or trucking fish as is conducted on the Columbia River. Dean Brockbank, vice president and general counsel of PacifiCorp was quoted as saying the government "made it very clear from a public policy point of view that they did not want these dams relicensed. Once that became abundantly clear, we shifted our framework from relicensing to a settlement involving a possible dam removal framework". What this statement makes abundantly clear to me is that top level officials within the Department of Interior conspired to orchestrate the removal of the dams from the beginning and that the rest of this discussion was simply window dressing and not a sincere attempt to settle the issues with all options available.**

13. **I am concerned about the precedence that this settlement agreement will set. Removing four relatively small dams within the Klamath River system will have an effect on the Upper Klamath Basin in terms of water supply and power rates. However, the greater effect is the precedence that this sets. Can you imagine what will happen if this settlement agreement is used to argue the removal of Columbia River and Snake River dams? Environmental groups have long been successful at taking baby steps toward a large long-term goal. With each baby step there is little concern. And then one day you turn around and realize you are now taking out Columbia River dams, not just a small crumbling Chiloquin Dam. Please stop the environmental groups from marching over the Klamath River system as a small baby step on their way to much larger, more detrimental steps.**

14. **Dam Removal is absurd because the Dams provide electricity for 70,000 homes. Why destroy this clean energy and then raise our power rates with more expensive and less reliable energy. Dam removal is expected to cost somewhere between 450 million and 4 billion dollars. This does not include the cost of replacement power. Then on top of all this we have another billion dollars with this "restoration agreement" where we have**

government programs where we take more and more land out of agricultural production, buy the tribes 90 thousand acres, and provide big money to water marketers. This Settlement agreement is nothing more than a massive raid on taxpayer's wallets. If dam removal is such a good idea why not make those people who advocate for it pays for it instead of us taxpayers and ratepayers.

15. I am being coerced into signing an agreement. I do not understand the complete implications of the agreement, as it does not provide sufficient details for me to come to a comfort level with it.

16. What is going to happen with the comments we are presenting? Who is going to incorporate the comments? Or are we just commenting to appease the public that we have had an opportunity to comment, but nothing will actually come of the comments?

17. I am very concerned that the citizens within Klamath County will not have a way to require the Klamath Tribes to follow through with their part of this settlement agreement (Sec. 2.2.8 pg 15). The citizens cannot sue the Klamath Tribes, a sovereign nation, to enforce the terms of this agreement. This makes me nervous that if I agree to everything within the KBRA and KHSA, and the Tribes do not uphold their end of the deal, I am simply out of luck with no recourse

18. This settlement agreement does not appear to provide any assurances that the irrigation water inside or outside the Klamath Project will be delivered. This concern is primarily in reference to the endangered fish living within Klamath River system and Upper Klamath Lake. If federal agencies decide the fish need more water, then the irrigation water will still be shut off. Therefore, even if we make this agreement and sign away portions of our Upper Basin water, we still have no guarantee that water will be delivered for irrigation. (Sec. 21.4.1 pg 152, Sec. 22.1.3 pg 154, & Sec. 21.3.1.B.e pg 151)

19. Do you want power and rate uncertainty? The removal of the Klamath dams will destroy electricity for 70,000 homes, equal to an area larger than the City of Klamath Falls losing its power permanently! Where is the renewable, greener replacement power that is to replace the power generated by the existing dams? This is just one of the negative aspects of the KBRA and the Klamath dam removal.

20. The KBRA and KHSA, gives new meaning to the phrase "I'm from the government, trust me." The KBRA is an alleged agreement formulated by

26 groups meeting secretly for several years. They even signed a confidentiality agreement, so the general public would not know what's going on behind closed doors. What happened to Due Process and transparency? Check out Sec. 34.1 pg 171, in the KBRA. A prime example of Due Process being thrown out the window.

21. Upper Basin irrigators requested three things: reasonable power rates, assurances that endangered species would not further threaten irrigation water supply, and guaranteed water supply to irrigators not included in the water buyout. It is very obvious that there is no affordable power rate for agriculture, no guarantee of water and absolutely no protection from the ESA or Biological Opinions, in the KHSA and KBRA, Sec 22.5.

22. The KBRA and KHSA as written limit the possibility of any off stream storage, such as Long Lake, for agricultural purposes. The KBRA dedicates more water to instream flows, which will not be allowed to be used for the off stream storage and any off-stream storage would be for fish only, being called "Environmental Water", Sec 20.5-20.5.2. The need for off stream storage is huge. The KBRA will not allow for additional storage rights, as all of the additional water available will be required to remain instream for fish.

23. What exactly are the Klamath Tribes giving up in return for all of the large concessions in the KBRA and the Klamath Hydroelectric Settlement Agreement? Could you please list the tangible objects which the Klamath Tribes are giving up? Remember, they have no water right, only a claim.

24. I am not certain that the Klamath Tribes have compromised on any aspect of their demands. It appears that they are receiving everything they are asking for, while giving up nothing in return.

25. The term of the KBRA is limited to 50 years, found in section 1.6, page 5. Dam removal is permanent, water right amounts, instream amounts and priority dates advocated for in the KBRA will be permanent, water right buyouts will be permanent, Mazama Tree Farm 90,000 acre land give-away is permanent. There is no guarantee of water, affordable power or protection from the ESA or Biological Opinions. This is anything but fair and equitable in terms of "compromise".

26. This settlement agreement has the term of fifty years (sec.1.6, pg 5). At the end of fifty years, which is not that long, what incentive will there be to continue providing any of the hoped for benefits? The agreement will no longer be in place, which will allow for the government and power companies to void their incentives and raise rates as they please. All the concessions in the KBRA & Dam Removal are permanent.

27. **Under the terms of the settlement, the Klamath Tribes will be receiving 90,000 acres of private timber lands, primarily at the expense of the federal government (Sec. 33.2, pg 170). I do not understand why the Klamath Tribes should be given land, instead of having to pay for it like the rest of the citizens within Klamath County. Can the government please give me some other land with irrigation water, since the government is effectively taking away my irrigation water which I purchased at a fair market value?**

28. **The Klamath Basin Restoration Agreement if implemented would destroy upper basin livelihoods. The Tribes are seeking essentially all of the water in stream. The KBRA and KHSA require Tribes and Environmental organizations to target upper basin irrigators, before regulating the Klamath Project. This agreement is grossly unfair. Now we have a major agreement proponent Sustainable Northwest paying Becky Hyde in excess of $63,000, to promote this devastating so-called settlement, all the while failing to mention that settlement as written would destroy upper basin irrigators.**

29. **The additional in-stream claims pushed in the KBRA and KHSA, will put the 30,000 acre feet of irrigation water diverted to the Rogue Valley at risk. This water is used by many irrigators in the Rogue Valley including Bear Creek Orchards. (Sec. 20.5.2.E, pg. 142 & Sec. 18.2.6, pg. 123)**

30. **Numerous times I have read in the newspaper that the Settlement Agreement would guarantee water for agriculture. Unfortunately, the settlement agreement says no such thing. In fact, the settlement agreement is abundantly clear that there are no such protections and that the US Fish and Wildlife Service still has authority to shut down the project just like they did in 2001. This agreement is tearing our community apart; please help us stop it unless there are major fixes to these terrible conditions. (Sec 21.4.1 pg 152 & Sec. 22.1.3 pg 154)**

31. **It seems we have a lot of people having a financial incentive to promote settlement. Settlement proponents are paying at least one off-project proponent of settlement as a consultant. Settlement also advocates in excess of 100 million dollars in water marketing schemes both on project and off-project. Some people have made a lot of money marketing water. And finally the refuges were historically last to get water in times of shortages, now the refuges appear to be guaranteed a fixed amount of water under settlement. Would this water not come from other agricultural users, and would this water not benefit those farmers who farm the refuges at the expense of other farmers. Are these people supporting settlement doing so because it is good for the community, or because it is good for their pocket book at the expense of the community?**

32. **The Trinity River is historically a large contributor of flow to the Klamath River. Now the majority of the Trinity River goes to the central valley of California to supply their agricultural, industrial and municipal uses. This is unfair that large quantities of cold water are taken away from Klamath flows, essentially to satisfy the shortages which were created by the diversion of the Trinity River to the Sacramento River system. The Trinity River diversion is specifically protected in the KBRA. (Sec. 2.2.12, pg 16)**

33. **As a farmer and rancher, I never thought that I would live in a community where I would have to become a welfare recipient. I do not want to depend on government programs and funds to survive. I am concerned about losing my way of life, independence and dignity.**

34. **What happens if you do not participate in the KBRA or KHSA? Say I choose to pay tariff rate for power, then what can the KBRA or KHSA do to me?**

35. **Which physical ground is going to be dried up with the so called loss of 100,000 acre feet of water from the Klamath Project?**

36. **Citizens within the Klamath Basin who harvest timber have to pay timber tax. This timber tax is paid to Klamath County for uses including schools and emergency services. Will the Klamath Tribes be required to pay tax on timber harvests? The current agreement only provides funding to Klamath County to offset the property tax. Will Klamath County be provided these timber tax dollars by the state or federal government, if the Klamath Tribes are not required to pay them. These tax dollars are desperately needed to help cover the costs of the Klamath County schools and other local services.**

37. **This agreement has been proposed to limit law suits. I am not sure that it will limit law suits, particularly if it does not resolve all of the contests within the Klamath adjudication. It appears the only limitation on lawsuits is by having the Off-Project Power Users endorse the settlement as a step in the process to receive lower power rates. It would be difficult for an Off-Project Power User to both sue and support an agreement or an agreement consequence.**

38. **How do you expect us to sign on to an agreement when the settlement groups are still working on filling in the details and understanding the implications?**

39. **Settlement agreement advocates that our water right be targeted at the same time as baiting the mouse trap with "affordable power". Unfortunately, this affordable power is not guaranteed. It is only if some government funding comes through. But the land going out of agricultural production, the dams being removed, and the requirement that Environmentalists and Tribes target the off project irrigators every time they need more water, our guaranteed under settlement. The power program is funded through a loan, which will have to be repaid at some point. (Sec. 17.7.2.B pg 118 & Sec. 17.7.3C pg 119) Unfortunately, the only guarantee the settlement provides is that there will be a lot less land in agriculture production.**

40. **If the KBRA and KHSA is the fix-all for everything, why do state laws need to change to accommodate all its parameters?**

41. **100,000 acres of irrigated land have been permanently retired by governmental and The Nature Conservancy purchases. The KBRA will permanently retire an additional 30,000 acre feet of water with a formula for much more (Sec. 16.1 pg 105 & Sec 16.2.2B, pg 108). This will lead to ruin in the cattle business, the biggest agricultural business in Klamath County. The support industries all the way from local country stores to the local implement dealers will be crippled.**

42. **Do we want thousands of acres of land lying idle and becoming a dust bowl? The proposed KBRA & KHSA will dictate considerably more water for refuges, less for agriculture than has historically been the case, hurting our local economy and reducing tax revenues. We crippled the timber industry; do we harm the agricultural community as well? (Sec. 15.1.2.B)**

43. **Water claims for the Klamath Project were filed under the Oregon and US Reclamation Acts, which called for irrigation uses. Under KBRA & KHSA, uses would be expanded for fish and wildlife. Deadlines have long passed to amend claims filed. How can we legally amend these claims at this time? (Sec. 15.1.1.A.i, pg. 52)**

44. **The Oregon adjudication grants rights based upon historical uses. Project usage has been dependent on stored water. How can stored water under the KBRA & KHSA now be dedicated to these new instream purposes and now allow calling on Upper Basin water to meet the Project needs?**

45. **Who elected all of the new governing bodies established within the KBRA and KHSA?**

46. **Since the KBRA and KHSA are so controversial in southern Oregon, why had it not been put to the public for a vote?**

Thank you for taking the time to address all of these questions and concerns.

Tom Mallams

President, Klamath Off-Project Water Users Association

tmbrokenboxranch@gmail.com

Pacific Fishery Management Council

7700 NE Ambassador Place, Suite 101, Portland, OR 97220-1384
Phone 503-820-2280 | Toll free 866-806-7204 | Fax 503-820-2299 | www.pcouncil.org
Dan Wolford, Chairman Donald O. McIsaac, Executive Director

December 13, 2011

Ms. Elizabeth Vasquez
Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825

Subject: Klamath Facilities Removal Public Draft Environmental Impact Statement/ Environmental Impact Report

Dear Ms. Vasquez:

This letter presents the comments of the Pacific Fishery Management Council (Council) regarding the Klamath Facilities Removal Public Draft Environmental Impact Statement/ Environmental Impact Report (EIS/EIR).

The Council would like to commend the Department of Interior and the State of California for completing this comprehensive National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) document over a relatively short period of time. The proposed action includes the removal of four dams owned by PacifiCorp from the mainstem of the Klamath River, in addition to implementing the landscape-scale restoration efforts outlined in the Klamath Basin Restoration Agreement (KBRA). These are major steps toward addressing habitat-related problems that have plagued Klamath Basin fishery resources for decades; the Council recognizes the significant controversy surrounding this action.

The Council has previously expressed its concern, in various forums, regarding the extensive impacts of the Klamath Hydroelectric Project to the West Coast salmon fishery and dependent communities. The Council is gratified to see that an agreement to remove the dams (Klamath Hydroelectric Settlement Agreement) and to address other habitat problems facing the Basin's fishery (KBRA) has been reached, and that environmental studies are progressing in a timely manner.

The Council was created by the Magnuson Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) of 1976 with the role of developing, monitoring, and revising management plans for fisheries conducted in Federal waters off Washington, Oregon and California. Subsequent congressional amendments in 1986, 1990, and 1996 added emphasis to the Council's role in fishery habitat protection. Amendments in 1996 directed the National Marine Fisheries Service, as well as the regional fishery management councils, to make recommendations regarding Federal or

state agency activities that may affect the "essential fish habitat" (EFH) of fisheries under their authority. The proposed action to remove the hydro-electric facilities from the Klamath River is a Federal action that has an effect on EFH and will require formal EFH consultation.

The current Facilities Removal EIS/EIR and the previous Federal Energy Regulatory Commission EIS regarding the relicensing of the Hydroelectric Project show that the Project has dramatically diminished the range, quantity, and quality of habitat for Klamath Basin anadromous fish stocks, and has had other profound negative impacts on the anadromous fish of the Klamath Basin. Anadromous fish have been extirpated from several hundred miles of historic habitat above Iron Gate Dam, and habitat in the mainstem Klamath River below Link River Dam has been degraded, as a result of the Project. Our review of the EIS/EIR and its large body of supporting documentation and studies confirm these observations.

The decline of Klamath River Basin fisheries resources is a serious concern to the Council. Ocean fisheries along the Pacific Coast from Cape Falcon to Monterey Bay are often constrained by the need to reduce harvest impacts to Klamath River fall Chinook because of the depleted status of this stock. The Klamath Hydroelectric Project has had a significant effect on Klamath Basin fisheries and on the economies of tribal and nontribal fishing communities within the Klamath Basin and along the Pacific Coast from Monterey Bay, California to Cape Falcon, Oregon. We are gratified to see that these effects, long ignored in other analyses, are treated with rigor and quantitative discipline in the current EIS/EIR.

The fish production modeling efforts that were developed for the socioeconomic analysis of the NEPA/CEQA document support the need to implement the proposed action, as they indicate a substantial increase in both spring and fall Chinook salmon production as a result of the hydroelectric facilities' removal and KBRA implementation. The estimated 42 percent increase in ocean troll and sport fishery income over the next 50 years is indeed encouraging. However, we note that the independent expert panels whose purpose is to inform the Secretary of Interior about the effects of dam removal on fish populations have cautioned that significant improvements in water quality and fisheries habitat must accompany dam removal to see the true benefits of the proposed action. We urge the Secretaries of Interior and Commerce to do everything in their power to prioritize resources and expertise to accomplish these tasks.

In light of substantial benefits to the fishery resource and dependent fishing communities along the Pacific Coast and Klamath River, the Council is supportive of proposed action, Alternative 2: complete removal of the facilities. We could also support the partial removal alternative (Alternative 3), which includes removal of enough of each dam to allow free-flowing river conditions and volitional fish passage for all anadromous species at all times, especially if cost considerations would preclude full removal. The document notes that benefits to the fishery are expected to be similar under Alternatives 2 and 3.

In summary, we appreciate the monumental effort that has gone into development of this environmental analysis over a relatively short time period. We believe that it forms a

solid foundation for a positive determination by the Secretary of Interior to remove the hydroelectric facilities and implement the KBRA.

Sincerely,

D. O. McIsaac, Ph.D.
Executive Director

JDG:kam

C: Council Members
Habitat Committee Members
Salmon Advisory Subpanel Members

December 29, 2011

Ms. Elizabeth Vasquez
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Mr. Gordon Leppig
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RE: American Rivers Comments on Klamath Facilities Removal Public Draft Environmental Impact Statement and Environmental Impact Report

Dear Ms. Vasquez and Mr. Leppig:

American Rivers appreciates the opportunity to comment on the draft Klamath Facilities Removal Environmental Impact Statement/ Environmental Impact Report (DEIS). The comprehensive analysis presented in DEIS clearly indicates dam removal is in the public interest and will advance the restoration of steelhead, salmon and other fish species in the Klamath Basin. The DEIS provides the necessary basis for the Secretary of the Interior to make an affirmative Secretarial Determination in March of 2012, as set forth in the Klamath Basin Restoration Agreement and Klamath Hydropower Settlement Agreement ("Klamath Agreements").

American Rivers supports Alternative 2, Full Facilities Removal of Four Dams, and Alternative 3, Partial Facilities Removal of Four Dams as described in the DEIS. These

alternatives equally achieves the purposes of fisheries restoration and improvements to water quality and habitat, among other benefits.

The benefits of removing the four Klamath River dams in concert with the full implementation of the Agreements offers the only feasible path to basin wide fisheries restoration and community health. The DEIS shows the comprehensive project will dramatically increase salmon and steelhead populations and improve commercial and tribal fisheries, create thousands of jobs, secure water deliveries for farmers and ranchers, and recognize and strengthen tribal trust responsibilities. Alternatives 2 and 3 also protect PacifiCorp customers from potentially significantly greater costs associated with other possible project alternatives.

American Rivers actively participated in PacifiCorp's dam relicensing proceeding beginning in 2000, including the Energy Policy Act proceeding in 2006 that upheld the prescriptions for volitional fish passage issued by the National Marine Fisheries Service and Fish and Wildlife Service. American Rivers was actively involved in developing the Klamath Agreements and is a signatory to both.

American Rivers is a national river conservation organization founded in 1973 to restore and protect our rivers for the benefit of people, fish and wildlife. We have 15 offices around the country including Oregon and California, with 75,000 supporters including more than 10,000 in California and Oregon. .

Below we provide comments to selected sections of the DEIS.

2.0 Alternatives

American Rivers supports Alternative 2, Full Facilities removal of Four Dams. This alternative would include the complete removal of dams and associated facilities and the transfer of Keno Dam to the Department of the Interior (DOI). This would result in a free-flowing Klamath River downstream of Keno dam and would provide passage for steelhead and salmon into more than 300 miles of historic spawning and rearing habitat in the Upper Klamath Basin.

The estimated cost of Alternative 2 is $290 million, with $200 million coming from PacifiCorp's ratepayers in Oregon ($187 million) and California ($13 million). The remaining $90 million for dam removal is to be paid by the State of California.

American Rivers also supports Alternative 3, Partial Facilities Removal of Four Dams, because it would achieve restoration and economic objectives equal to Alternative 2 but would cost California only $47 million, which is $43 million less than Alternative 2. This option would remove the majority of the four dams to allow a free-flowing river and volitional fish passage, but would leave certain hydropower facilities and abutments would remain.

Contrary to other commenters to the DEIS, the No Action Alternative and Alternative 4 correctly assume that the obligations under the KBRA that would not otherwise be implemented under separate commitments ("KBRA-only actions") will not be implemented unless the removal of Klamath River dams occurs. The KBRA does not provide for full implementation of its provisions absent dam removal. As a signatory to the KBRA, American Rivers would not support implementation of KBRA-only actions unless Klamath dams were removed because many of its provisions, in particular those related to diversion limitations and associated flows in the lower Klamath and lake levels in Upper Klamath lake, are predicated on the ecological benefits of removing Klamath dams.

American Rivers recommends the final EIS include a more detailed analysis of Alternative 8, Full Facilities Removal of Four Dams Without KBRA. The value of providing this additional analysis includes: 1) evaluating the most the most likely path to dam removal if the Klamath Agreements terminate; and, (2) distinguishing the significant restoration and economic benefits provided by implementing the KBRA and KHSA.

American Rivers also recommends a more detailed analysis of why Alternative 10, Fish Bypass: Bogus Creek Bypass, and Alternative 11, Fish Bypass: Alternative Tunnel Route, as unfeasible. In addition to the biological reasons given in DEIS Appendix A (pgs. 4-9 to 11) and in the CDFG 2009 reference, these options are likely unfeasible for many reasons, including: 1) the enormous uncertainty that such complex and unproven techniques would succeed in passing any fish; 2) the need for routing such channels/tunnels across or underneath private property likely would involve condemnation to obtain necessary rights of way and easements; 3) the high costs and uncertainties of these options, especially Alternative 11 which would require tunneling though a significant mountain formation.

3.2 Water Quality

The presence and operation of the PacifiCorp's dams negatively impacts water quality in the Klamath River, and the DEIS makes clear that leaving the dams in place under the No Action/No Project Alternative and other alternatives that retain the dams would cause continued violations of California North Coast Basin Plan water quality objectives and adversely affect beneficial uses in the Klamath River downstream of Iron Gate Dam (see e.g., DEIS pg. 3.2-47 to 52 and 3.2-61 to 66). The four dams slow the transport of water, resulting in increased water temperature and decreased water quality conditions during the summer months. The dams also alter seasonal water temperature patterns disrupting spawning run-timing for fall-run Chinook and coho salmon.

Alternatives 2 and 3 will eliminate the thermal lag caused by water storage in reservoirs levels resulting in water temperatures following more natural patterns of variation and improve dissolved oxygen levels resulting in more suitable conditions for migration, spawning and rearing of anadromous fish.

3.3 Aquatic Resources

Sediment transport

American Rivers is encouraged by DEIS findings that although impacts of suspended sediment concentrations and sediment deposition rates would likely prove lethal over the short term, the effect on habitat is anticipated to be short term (see e.g., DEIS pg. 3.3-75 to 99). Moreover, with the implementation of mitigation measures, such as capture and relocation of migrating adults or outmigrating juveniles can significantly reduce short term adverse impacts (see e.g., DEIS pg. 3.3-195 to 201).

Chinook Salmon

Alternatives 2 and 3 are expected to increase Chinook salmon run sizes by over 80 percent. This will also result in expected increases in salmon ocean commercial and sport harvests is also forecasted to increase by 46.5 percent, tribal harvest by 54.8 percent and in-river recreation harvest by 9 percent.

Under the dam removal alternative fall-run Chinook salmon would gain access to the Upper Klamath River basin, including the Sprague, Williamson and Wood Rivers.

Another 49 tributaries would be accessible in the upper basin. All together over 420 miles of additional spawning and rearing habitat will be available Chinook salmon.

Keno Dam and reservoir experiences poor water quality conditions during the summer months with water temperatures exceeding 25 degrees C (77 degrees F). This may prevent fish passage through this area following the removal of the four dams in the lower river. However, there is evidence that Upper Klamath Lake is suitable for Chinook salmon from October through May, suggesting that if fall spawning fish can tolerate the Keno reach, more suitable conditions await in Upper Klamath Lake. Still, poor water quality conditions may necessitate seasonal trap and haul around Keno Reservoir for some life stages of Chinook salmon. The DEIS underscores the benefits to Keno Reservoir water quality with the full implementation of the KBRA. This is one good example of the need to implement both dam removal and the Klamath Basin Restoration Agreement actions to fully achieve basin wide restoration of salmon runs.

The DEIS also highlights the findings of several expert panels on the influence of dam removal and implementation of the KBRA on salmon and steelhead populations. Expert panels agree that dam removal would be a major step forward in increasing salmon and steelhead numbers in the Klamath Basin. Expert panels also underscore the need to implement the KBRA to achieve desired fisheries benefits, especially in the area of above Upper Klamath Lake. Expert panels concluded a fully implemented dam removal and restoration program would achieve the state goal for a "natural sustainable fishery and full participation in harvest opportunities, as well as the overall ecosystem health of the Klamath River Basin".

Coho Salmon

Alternatives 2 and 3 would open up access to 68 miles of historic coho salmon spawning and rearing habitat. This includes the mainstem Klamath River between Iron Gate and JC Boyle dam and tributaries such as Jenny Creek, Shovel Creek and most notably Spencer Creek. Spencer Creek was identified by Dr. Walt Duffy from Humboldt State during a federal hearing on the Klamath Dams in 2006, as the 'most important coho salmon habitat in the project area'. The removal of the four dams will increase Klamath basin wide coho habitat by 5% according to Dr. Duffy.

Fish Disease and Parasites

Alternatives 2 and 3 are expected to decrease the exposure and impacts of disease on salmon and steelhead din the Klamath River. The infection of juvenile outmigrating salmon smolts by parasitic fish disease has been a major contributor to the decline of Klamath River fisheries. The removal of four dams from the river and resultant more natural hydrology patterns and improved water quality conditions will reduce disease impacts on salmon and steelhead. Degraded habitat conditions below the dams have provided ideal habitat for the host polychaete worm which carries the fish disease. Fish eat the worms and become infected. Dam removal will reduce the favorable habitat for the worms and reduce exposure of the disease to fish.

The removal of Iron Gate Dam will allow fish to migrate farther upstream and reduce the concentration of adults below the dam. The greater dispersal of spawning adults upstream will reduce exposure to dense populations of polycheates in the area below Iron Gate Dam.

3.6 Flows and Flood Hydrology

The implementation of dam removal and the KBRA will establish a more holistic way to manage water flows in the Klamath basin. Single species management based on dueling Biological Opinions has created an atmosphere of regulatory legal warfare that has proven to not be of benefit to fish, farmers or communities of the Klamath basin. The proposed flows in the KBRA are better for fish than the current minimum streamflows currently being implemented.

With the removal of the four dams the differences in monthly average flows compared to dams in place is relatively small. Without the dams, however, smaller seasonal fluctuations will be translated downstream and no longer buffeted by the presence of the dams and reservoirs. These flow variations can be important migratory cues for anadromous fish.

Minimum baseflows with the dams gone and the implementation of the KBRA will be improved. The absolute minimum baseflow target under the KBRA at Iron Gate Dam will be approximately 800 cfs. Under typical water year conditions flows are expected to be more than this in the range of 1,000 cfs during the summer months. The KBRA allows for additional water to be release from Upper Klamath Lake when minimum

flow values are not met. This real time operation and flow balancing is one of the benefits of managing flows at a basinwide level. For comparison, flows in 1992 dipped to around 400 cfs during the summer months. In 2002, an extended period of low flows in the 700 cfs range during the late-summer and early fall months resulted in one of the largest fish kills in the recorded with over 60,000 Chinook salmon and steelhead dying in the lower Klamath River. The implementation of dam removal and the KBRA will improve temperature and flow conditions, and real-time water management, and prevent future fish kills.

Flooding Risk

Opponents of Klamath River dam removal suggest that flooding is the inevitable consequence of the loss of the dams, yet in high spring runoff conditions the four lower Klamath River dams only provide approximately ten hours of capacity. The four lower most Klamath dams are not designed to buffer flood flows, they are simply too small to regulate large flows.

Flood flows in the Klamath basin are buffered and managed by operations at Link River Dam on Upper Klamath Lake. Further, the KBRA calls for wetlands restoration on the shores of Upper Klamath Lake adding more flood storage to the system than will be lost by removing the four dams. American Rivers agrees with the DEIS conclusion that there will be "no significant impact" on flooding below Iron Gate dam. There is less than 7% maximum discharge difference between dams in and dams out, so in reality the dams to very little to mitigate large winter flood events.

3.10 Greenhouse Gases/Climate Change

The removal of four hydroelectric dams will result in the loss of locally generated power. However, the amount of this loss must be put into perspective. The Klamath dams generate 169 MW on the books, but according to the Federal Energy Regulatory Commission an average of only 82 MW per year over the past 50 years. Contrast this to PG&E's McCloud-Pit project in Shasta County just to the south of the Klamath Dams, where 5 dams generate over 700 MW of reliable hydropower. The Klamath Dams are not large power producing dams and represent only 1% of PacifiCorp's entire electricity portfolio.

PacifiCorp is already committed to bringing more than 1,400 MW of brand new, cost effective renewable power online by 2015, dwarfing the loss of power from the Klamath dams. American Rivers encourages PacifiCorp and settlement parties to place future renewable power projects in Siskiyou County to further add to the economic benefits of dam removal and the KBRA to the region.

3.14 Land Use

The implementation of Alternatives 2 and 3 will result in the loss of the thee large reservoirs, affecting individuals that live on or near the reservoirs—particularly Copco Lake. The KHSA calls for the transfer of PacifiCorp lands currently inundated by the reservoir to be transferred to the states of California and Oregon. The states do not yet have detailed plans for management of these lands but they are targeted for restoration.

The KHSA calls for the states to pay in-lieu of taxes to the counties for lands that are transferred from private to public ownership. American Rivers encourages the states to provide assurances this will be done. Additionally, American Rivers encourages settlement parties to engage with Siskiyou County and local residents on the use of lands along and underneath the reservoirs.

3.15 Socioeconomics

The DEIS shows that the implementation of Alternatives 2 and 3 will create significant and lasting economic benefits to the Klamath Basin. During the one-year dam removal project a total of 1,400 jobs will be created to dismantle the dams. Implementation of the many programs in the KBRA over a 15-year time period will results in the creation of 4,600 jobs. Employment stemming from increased gross farm income during the modeled drought years is estimated to range from 70 to 695 average annual jobs.

Dam removal would affect property values in varying ways over the short and long-term. American Rivers encourages settlement parties to work with local residents and Siskiyou County to provide mechanisms for compensation for lost property values. The socioeconomic impacts to the landowners around Copco and Iron Gate Reservoir should be addressed and mitigated.

Conclusion

American Rivers supports Alternative 2, Full Facilities removal of Four Dams, and Alternative 3, Partial Facilities Removal of Four Dams. The DEIS provides the necessary basis for the Secretary of the Interior to make an affirmative Secretarial Determination in March of 2012 and demonstrates that the proposed project will create a path to the restoring of Klamath River fisheries, improving habitat and water quality, and benefiting the many communities that depend on a healthy Klamath River.

Sincerely,

Steve Rothert
Director

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Klamath Falls Hearing - 10-18-2011

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STATEMENT PROVIDED BEFORE PUBLIC HEARING

(Directly to Court Reporter)

MR. GARY WRIGHT: Good evening, my name is Gary Wright, W-r-i-g-h-t.

Our family farms and ranches in the Tulelake

area on about 5500 acres. I am currently the president of

the Klamath Water Users Association.

Water user members include a majority of the

irrigation and other districts in the Klamath Project.

Clearly, a lot of work and effort has gone into

the draft EIS. We appreciate the challenges of putting it

together. The information should be -- the information

should be complete and as accurate as possible.

We do have some concern with some of the

information and how it is presented, and we would like

more detailed written comments prior to the deadline.

For the purposes of this meeting, I have a few

comments to make for the record here tonight that are more

general in nature.

The draft EIS deals with the potential for

removal of dams specific to our own, but for the Klamath

Project irrigators in our district, the process leading to

the EIS and the ultimate decision is not just about the PacifiCorp dams.

Klamath Water Users has been in existence for nearly 60 years, it has represented irrigators through good times and bad times. We have had and continue to have no goals more important than a secure and dependable supply of water to our farms and ranches, maintaining the viable local agricultural economy.

We also know and respect that there are other legitimate interests in this basin and we have worked extremely hard to reconcile these important interests in order to obtain stability and a better future for all.

A few years ago, the Klamath Water Users' board of directors adopted some guiding principles that directly relate to our efforts in public discussion settlement agreements, and I would like to read a few of them.

We support the long-term viability of irrigated agriculture, inside, outside -- and outside the Klamath Reclamation Project.

We support securing the most water to irrigate the most acres possible.

We support an end to needless litigation with tribes, fishermen, and others.

We support individuals' ability to choose if

and how they participate in any resource-related programs or issues.

We support a market-driven approach to address water shortages and we support wise use of taxpayer dollars for watershed resource management.

We support private property rights of individuals and private companies, such as PacifiCorp.

We support protecting the ratepayers and capping costs relating to PacifiCorp's cost of operations.

We support protection of landowners from regulatory uncertainty that might result from the introduction of species in the upper basin.

My time is up so I'm going to end this with -- we have a whole list of, uh, our goals here and we, as an organization, feel that these principles are consistent with what is going on with the settlement agreements.

Thank you.

AA.5 Special Interest Groups

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Duplicate of
SG_EM_1219_006

Ms. Elizabeth Vasquez
Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825

12/22/2011

Dear Ms. Vasquez,

On behalf of the Oregon chapter of Backcountry Hunters and Anglers, I'm writing to indicate support for Alternative 2 (the proposed action) which includes the full facilities removal of four dams and the implementation of the Klamath Basin Restoration Agreement (KBRA). Outdoor activities including hunting, fishing and wildlife viewing contribute millions of dollars annually to the Klamath County economy - $23 million as calculated by the Oregon Department of Fish and Wildlife. Removal of the four dams and implementation of the KBRA will help water conditions in the Klamath basin national wildlife refuges and improve waterfowl habitat. Likewise, the salmon and steelhead fishery will benefit. Enhanced hunting and fishing opportunities will ensure an ongoing, and increasingly greater, benefit to the local economy as well as to sportsmen and sportswomen.

In addition to the benefits to sportsmen, the Klamath agreements are good for family farmers and ranchers and represent a locally devised plan. Implementation of the agreements will be good for people, fish and wildlife and will demonstrate fiscal responsibility in comparison to the cost of continued conflict in the Klamath basin.

Sincerely,

Fred Cliff

Fred Cliff

Co-Chair - Oregon Backcountry Hunters and Anglers

AMERICAN WHITEWATER
Pacific Northwest Stewardship Director
3537 NE 87th St.
Seattle, WA 98115
okeefe@americanwhitewater.org

December 27th, 2011

Submitted electronically
KlamathSD@usbr.gov
KSDcomments@dfg.ca.gov

Ms. Elizabeth Vasquez
Bureau of Reclamation
2800 Cottage Way
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Mr. Gordon Leppig
California Dept. of Fish and Game
Northern Region
619 Second Street
Eureka, CA 95501

Dear Ms. Vasquez and Mr. Leppig:

Thank you for the opportunity to provide comment on the Klamath Facilities Removal Public Draft Environmental Impact Statement (EIS) and Environmental Impact Report (EIR) evaluating the potential impacts of the removal of the four PacifiCorp dams (J.C. Boyle, Copco 1, Copco 2, and Iron Gate Dams) on the Klamath River as contemplated in the Klamath Hydroelectric Settlement Agreement (KHSA). American Whitewater strongly favors the Proposed Action, Alternative 2: Full Facilities Removal of Four Dams.

American Whitewater is a national non-profit 501(c)(3) river conservation organization founded in 1954. With over 5,500 members and 100 local-based affiliate clubs, we represent the conservation interests of tens of thousands of whitewater paddlers across the nation. American Whitewater's mission is to conserve and restore America's whitewater resources and to enhance opportunities to enjoy them safely. As a conservation-oriented paddling organization, American Whitewater has an interest in the Klamath River. A significant percentage of our members reside in Northern California and Southern Oregon—a short driving distance from this river for recreation.

American Whitewater Comments on Klamath Facilities Removal Draft EIS/EIR

American Whitewater strongly favors the Proposed Action, Alternative 2: Full Facilities Removal of Four Dams. American Whitewater recognizes that the nature and character of the whitewater experience on the Klamath River will change, and the reduction of summer peaking flows on the Hells Corner will no doubt reduce the allure of this particular reach for mid-summer day trips. However, the long-term prospects for a significantly longer and uninterrupted reach of free-flowing river will provide new opportunities for whitewater recreation for both the general boating public and commercial raft outfitters on the Upper and Lower Klamath Rivers. As long as mitigation measures that include improvements to public

access, transitional assistance for outfitters, maintenance of stream gauges, and restoration measures are implemented, we conclude that the proposed action will enhance the opportunities and quality of whitewater recreation for both commercial outfitters and the general boating public on the Upper and Lower Klamath Rivers. Removal of the four dams will resurrect 17 miles of river inundated by reservoirs, restore flows to six miles dewatered by PacifiCorp diversions, and improve water quality on both the Upper and Lower river.

Our comments reflect several key areas of concern:

- American Whitewater agrees with findings that dam removal will improve water quality as well as scenic and aesthetic values, which will in turn enhance whitewater recreation.
- American Whitewater strongly supports the EIS's call for REC-1 Mitigation Measures, in particular the development of new river access points.
- American Whitewater believes the EIS is too restrictive in its interpretation of acceptable flow ranges for whitewater recreation on sections of river affected by dam removal.
- American Whitewater believes the EIS understates the benefits to whitewater recreation of restoring flows to the J.C. Boyle Bypass and Copco Bypass Reaches.
- American Whitewater believes the EIS should more fully consider the benefits to whitewater recreation of restoring 17 miles of the Upper Klamath currently inundated by reservoirs.
- American Whitewater believes the EIS should consider the potential benefit to whitewater recreation of eventual designation of the entire Upper Klamath as a National Wild & Scenic River, which would be impossible without dam removal.

We have organized our comments largely by geographic section of river. We refer extensively to the Recreation Flow Analysis (RFA) section of the Recreation Resources Final Technical Report (FTR) published by PacifiCorp in February 2004, and submitted to the Federal Energy Regulatory Commission (FERC) as part of the relicensing proceeding for the Klamath Hydroelectric Project (FERC P-2082). We also refer to the recent article, "Resurrecting the Klamath: A Gift to be Claimed," by American Whitewater Regional Coordinator Bill Cross, that was published in the September/October 2011 issue of the American Whitewater Journal.

1. KENO REACH

a) Downriver Boating:

In section 3.20.1, the EIS notes that "The Klamath River downstream of Keno Dam provides approximately five miles of suitable whitewater for boating, although not much boating use is reported for this reach, perhaps due to its level of access and short run length."

The EIS correctly identifies access problems as a key hindrance to whitewater recreation on the Keno Reach. Specifically, American Whitewater believes the principal factor discouraging whitewater boating on this run is poor access, in the form of:

1. A difficult put-in at Keno Dam. Access at Keno is moderately challenging for kayakers, and arduous for rafters. It is not possible to drive close to the riverbank at Keno Dam, as it is at more traditional launch points such as the Spring Island put-in for the Hells Corner Reach. As the PacifiCorp RFA notes, "the road is in very poor condition ... offers limited parking, and does not provide an obvious ramp to the river (boaters scramble down the banks)" (p. 2-44).

2. A mandatory two-mile flatwater paddle across the upper end of J.C. Boyle Reservoir to reach the take-out at the Hwy 66 bridge. In the past it was possible to avoid this flatwater by taking out at Sportsman's Park at the head of Boyle Reservoir, but that access on private property is now closed. The resulting long, flatwater paddle across the reservoir is a significant negative for rafters and kayakers, whose whitewater craft are poorly suited to flatwater crossings.

Despite noting that poor access may partially explain light use of the Keno Reach, the EIS overlooks this factor when assessing whether dam removal might increase whitewater use on the Keno Reach. On page 40, the EIS considers only the effects of flow on use, and does not address questions of access. The EIS concludes that because there will be little change in the availability of acceptable flows on Keno Reach, "impacts on whitewater boating and fishing opportunities in these reaches would be less than significant."

American Whitewater strongly disagrees with this finding. Flows are not the only factor that affects use. In fact, access is likely a key factor limiting use of this section.

American Whitewater believes two additional questions should be posed:

1. Will dam removal, by eliminating an arduous flatwater paddle at the end of the Keno Reach, enhance whitewater recreation and lead to increased use on this section? American Whitewater believes the answer is clearly "yes," and that dam removal would therefore produce a significant benefit to whitewater recreation on Keno Reach.

2. Would improvements to Keno put-in under REC-1 enhance whitewater opportunities and lead to increases in whitewater use? Following transfer of Keno Facilities to DOI, there will be an opportunity under REC-1 Mitigation Measures to improve access at Keno. Such improvements could lead to significant increases in whitewater recreation on the Keno Reach.

b) Keno Wave:

Finally, the EIS does not consider "park-and-play" use at Keno Wave, immediately downstream from Keno Dam. Through-boating is not the only whitewater opportunity on the Keno Reach;

there is a popular play wave immediately downstream from Keno Dam. This wave is a significant whitewater resource, but its use is limited by poor access. The RFA noted that "[T]he popularity of playboating has increased significantly in the past decade, and play waves of this type have the potential to attract considerable use" (p. 2-47). The RFA notes that the Keno Wave "may rival the quality of other Oregon play areas such as Bob's Hole on the Clackamas River" (p. 2-49).

The EIS should evaluate whether improvements to the Keno river access under REC-1 might significantly benefit whitewater recreation at Keno Wave.

2. BOYLE BYPASS REACH: ACCEPTABLE FLOWS

Boyle Bypass Reach has tremendous recreation potential if flows are restored under the Proposed Action. However, the EIS underestimates this benefit by using an overly restrictive range for acceptable flows. The EIS uses 1,300-1,800 cfs as the acceptable flow range on Boyle Bypass Reach—an unrealistically narrow range that leads to an underestimate of likely whitewater use under the dam removal alternative.

When determining minimum acceptable flows, American Whitewater believes the EIS should use the flows identified in the PacifiCorp RFA as acceptable for technical kayaking and rafting. "Technical" boating is an entirely legitimate form of whitewater recreation, and many river runners either favor technical trips, or will accept technical conditions if "standard" conditions are unavailable. Similarly, American Whitewater believes that maximum acceptable flows should correspond to the levels that rafters and kayakers identified in the RFA as the upper limit of acceptable for "big water" trips.

Using these criteria, the acceptable flow range for the Boyle Bypass Reach would be broadened significantly. Minimum acceptable flows would be 800 cfs for kayaks and 1,000 cfs for rafts, while maximum acceptable flows would be 2,300 cfs for rafts and 3,000 cfs for kayaks (RFA Table 2.7-9). American Whitewater believes that this total range represents a much more realistic spectrum for "acceptable" flows corresponding to the range of different experiences river runners enjoy.

Quoting from the PacifiCorp RFA:

> *"While flows below about 800 to 1,000 cfs are rated unacceptable (depending on the craft), ratings improve consistently from 1,000 to 1,600 cfs before gradually declining (although they remain in the acceptable range for rafts through 3,400 cfs and for kayaks through 5,000 cfs). On the basis of these data, the optimum range for both craft would occur between 1,400 and 2,000 cfs, but flows above 750 cfs and 1,000 cfs are acceptable for kayaks and rafts, respectively" (p. 2-60).*

"Rafts require more water to get down the river [than kayaks], with 1,000 cfs a starting point for acceptable quality" (p. 2-61).

After adjusting the acceptable flow ranges for Boyle Bypass Reach, it is necessary to recalculate the predicted percent increase in the number of days with acceptable flows, using the broadened flow range. This recalculation will help demonstrate even greater whitewater benefits of restoring flows to the Boyle Bypass Reach under the dam removal alternative.

Changes at Sidecast Slide:

Finally, American Whitewater notes that the findings of the PacifiCorp RFA must be reconsidered in light of an ongoing significant change within the Boyle Bypass Reach. The RFA's Phase II findings were based on runs that included mandatory low-flow portages at Sidecast Slide. This rapid, the most difficult on the Boyle Bypass Reach, is located just over a mile below J.C. Boyle Dam, where a large number of sharp, angular rocks were tumbled into the river channel during construction of the J.C. Boyle bypass canal in the late 1950's.

Portaging is an arduous process that almost all boaters regard as negative. The presence of a portage at a particular flow will make boaters much less likely to rate that flow as "acceptable." At the lowest test flow in Phase II of the RFA—690 cfs—almost all boaters were obliged to portage at Sidecast Slide, and not surprisingly almost all boaters rated this flow as unacceptable. At the second-lowest flow of 960 cfs, most of the rafts needed to either be portaged or lined, greatly reducing the appeal of the run for rafters at this flow. Again, not surprisingly, almost all rafters rated this flow as unacceptable.

Sidecast Slide is scheduled to be modified in November when BLM will remove a large number of boulders to improve fish passage. This action should, incidentally, make the rapid more passable to river runners at lower flows. Depending on the degree of improvement in low-flow passage, Boyle Bypass reach may become more acceptable for all boaters at flows lower than those that were determined in Phase II of the RFA. This positive change may be especially beneficial for future commercial rafting use on Boyle Bypass Reach.

3. BOYLE AND COPCO BYPASS REACHES: FINDING OF LESS THAN SIGNIFICANT BENEFIT

The EIS properly addresses the question of whether dam removal could enhance whitewater recreation in the J.C. Boyle and Copco Bypass Reaches (EIS p. 46). The EIS evaluates how dam removal could increase the number of days with acceptable whitewater boating flows in these reaches, and whether this might impact future whitewater use. The EIS predicts a 793.6% increase in the number of days with acceptable flows on Boyle Bypass Reach, and a 2,083.8% increase in the number of days with acceptable flows on Copco Bypass Reach. As noted above, these percent increases will actually be greater, once they are recalculated using a wider range of acceptable flows.

Given these dramatic increases in the availability of acceptable flows, it is surprising that this paragraph concludes that "the impacts on whitewater boating in the J.C. Boyle and Copco 2 Bypass Reaches would be less than significant." These two reaches were determined in the RFA to have strong appeal to whitewater boaters; participants in those studies were enthusiastic about the quality and quantity of rapids in the bypass reaches, as well as their scenic and aesthetic attributes.

The RFA spoke highly of the Boyle Bypass Reach, noting that it "offers a 5-mile Class III to IV whitewater run that is boatable at medium to high flows and is similar to the "gorge" section on the Hell's Corner reach" (p. 2-55). The RFA further notes that Boyle bypass offers "interesting scenery with steep canyon walls, large basaltic boulder fields, pine forests, a natural-appearing riparian zone, clear spring-fed water, and several rapids" (p. 2-52). The RFA even found that Boyle Bypass would be suitable for commercial rafting at intermediate flows (p. 2-59). Finally, the RFA recognizes that JC Boyle could be enjoyed in combination with other runs: "many boaters would probably link trips on the J.C. Boyle bypass reach with those on Hell's Corner reach (offering an overnight opportunity)" (p. 2-116). With the removal of J.C. Boyle Reservoir, this reach could be linked to upstream runs as well.

The RFA reached similar conclusions about Copco Bypass reach, noting that a test flow of 1,200 cfs "provided strong hydraulics and challenging rapids in the first half of the run," while the second half of the run featured rapids "reminiscent of the Hells Corner reach at 1,300 cfs ..." (p. 2-102). The RFA also noted that "Copco No. 2 bypass reach has considerable recreation potential from an aesthetic perspective. It has several interesting geologic formations and outstanding scenic vistas ..." (p. 2-117). Moreover, the RFA evaluations of Copco Bypass were based on trips that ran only the 1.5 miles from Copco 2 Dam to Iron Gate Reservoir. The RFA never even considered the scenario that offers the greatest potential for whitewater recreation on Copco Bypass: the removal of all four dams, allowing boaters to link this reach with adjoining runs both upstream and down. This possibility, which fell outside the scope of the RFA, would greatly increase the appeal of Copco Bypass Reach to river runners, including commercial outfitters. Significantly, these lengthened runs would include the 0.5 miles of high-gradient canyon currently inundated by Copco 2 Reservoir.

Clearly, the restoration of full flows to these reaches under the Proposed Action will greatly enhance both private and commercial whitewater recreation on the Upper Klamath. American Whitewater therefore strongly urges that the EIS be revised to conclude that the impact of dam removal on whitewater boating in the Boyle and Copco Bypass reaches will be strongly beneficial.

4. HELLS CORNER REACH

a) Acceptable Flows:

As with other reaches of the Upper Klamath, American Whitewater believes that the EIS uses too narrow a range for acceptable flows on Hells Corner. The EIS states that "acceptable whitewater boating flows range from 1,300 to 3,000 cfs" (p. 3.20-21). However, Footnote 1 on this page clearly acknowledges that 1,300 cfs is not, in fact, the minimum acceptable flow for whitewater recreation; rather, it represents "the amount of flow ... necessary for whitewater boating by loaded rafts" and that "more boating days would be available for flows down to 1,000 cfs for smaller craft and highly-skilled [boaters]."

American Whitewater believes it is inconsistent to use a different set of standards to determine the range of acceptable flows on one reach of river vs. another. A uniform standard should be used on all reaches. In fact, 1,300 cfs represents the minimum acceptable flow only for "Standard Commerical Rafting" as identified in the RFA. Lower minimum flows were identified for "Low-Flow Commerical Rafting" (1,000 cfs), "Technical Rafting" (700 cfs) and "Technical Kayaking" (400 cfs) (Table 2.7-9).

The approach taken by the EIS discounts whitewater use of Hells Corner at flows below 1,300 cfs. Yet the RFA clearly demonstrated that use is possible and likely at lower flows—even for commercial rafting. On page 2-91 the RFA concludes that although "Standard commercial rafting becomes acceptable about 1,250 to 1,300 cfs ... 'Low flow' commercial rafting appears acceptable about 1,000, and transitions into standard commercial rafting about 1,300 cfs." With regard to kayaking, the RFA concludes that "flows above 600 cfs [are] acceptable for kayaks ..." (p. 2-89).

American Whitewater believes that 1,000 cfs more accurately reflects a minimum acceptable flow for general whitewater recreation on Hells Corner. Importantly, this figure still encompasses an acceptable range for low-flow commercial rafting use. This 1,000 cfs figure should be used when calculating and comparing the predicted number of days with acceptable flows in the Dams In vs. Dams Out scenarios (EIS, Table 3.20-16).

b) Future Changes in Use Patterns:

The EIS implies (p. 3.20-21) that the figure of 1,300 cfs was chosen as the minimum acceptable flow on Hells Corner because commercial rafting accounts for roughly 90% of all use on this reach. However, American Whitewater believes that non-commercial use will increase significantly following dam removal, for two key reasons: improved access, and improved timing of flows.

The EIS focuses only on the *number* of days with acceptable flows on the Hells Corner Reach, without considering the *timing* of those flows. In doing so the EIS overlooks a key benefit of dam removal: constant flows. In addition, the EIS does not consider the impact of improved access under REC-1 Mitigation Measures. These changes following dam removal will affect future use patterns.

i) Improved Access and Flows at Frain Ranch:

The key factor inhibiting non-commercial use of Hells Corner is the long, arduous, expensive shuttle from the Spring Island Launch Site to the Stateline or Copco take-outs. This roughly 90-mile (one-way) shuttle presents a much greater obstacle for private boaters than for commercial outfitters, who typically employ paid drivers and shuttle vans. Many private boaters are unwilling to undertake a 180-mile round-trip drive—or pay upwards of $100 to hire a shuttle driver—for the sake of a one-day river trip.

The only way to shorten the shuttle is by launching at the alternative site at historic Frain Ranch, 5.5 miles below Spring Island launch point. Yet although most non-commercial boaters would much prefer to launch at Frain, thereby shortening their shuttle to a mere 12 miles one-way, there are two key deterrents: 1) the very rough drive up the Topsy Grade road from Stateline to Frain Ranch; and 2) the long, frustrating wait at Frain Ranch for peaking releases to arrive—often well into the afternoon. These negatives affect commercial outfitters as well, who would also sometimes prefer to launch at Frain. Outfitters have long noted that, although Frain makes an excellent campsite for two-day trips, customers do not appreciate long morning delays while waiting for flows to arrive.

Following dam removal, flows will be available round-the-clock at Frain. If in addition Topsy Grade road were improved as part of REC-1 Mitigation Measures (see Section 6, below), Frain would almost surely become the preferred launch point for private boaters—and some commercial trips as well. With the shuttle shortened from 90 miles one-way to a mere 12, private boaters would find Hells Corner far more attractive, leading to potentially significant increases in non-commercial use.

For these reasons, American Whitewater believes that non-commercial boating is likely to account for considerably more than 10% of total Hells Corner use following dam removal. It is therefore inaccurate to largely ignore non-commercial boating when determining minimum acceptable flow.

Again, the benefits of round-the-clock flow and improved access at Topsy Grade will also be of value to commercial outfitters. Shuttle costs represent a significant expense in running commercial raft trips on Hells Corner, and could be greatly reduced by launching at Frain. Outfitters would most likely use Frain as a campsite on overnight trips, launching from that point on the second day.

ii) Launches at Stateline Access:

An analogous situation exists at the Stateline Access, 11 miles below the Spring Island launch. Almost no boaters float the final 5.5 miles of Class II rapids at the end of the Hells Corner run. This is due in large part to the fact that peaking releases do not reach this point until mid-afternoon. With flows available throughout the day, boating use might increase substantially on this mild section. The EIS does not consider this possibility, presuming that all use of the Class II reach from Stateline to Copco is as an extension of the full Hells Corner

run. This is a natural enough assumption, because historically almost no boaters have chosen to launch at Stateline late in the day when flows finally arrive. However, with round-the-clock flows there might be considerable use of the Stateline-to-Copco reach as a stand-alone run, or in combination with the restored Copco Reservoir Reach just downstream. And significantly, river runners are likely to find lower flows to be acceptable on this less challenging reach than on the Hells Corner run just upstream.

c) Wild & Scenic Attributes:

The final portion of the Hells Corner Reach—5.3 miles from Stateline to Copco—was found in 1990 to be eligible and suitable for designation as a National Wild & Scenic River. This reach was determined to have outstandingly remarkable scenic, recreational, fish and wildlife values.

Clearly, round-the-clock flows—as opposed to peaking flows that fluctuate roughly fivefold every day—would greatly enhance this section's scenic and recreational values. American Whitewater believes the EIS should specifically evaluate whether dam removal could benefit whitewater recreation by enhancing the Wild & Scenic attributes of the Stateline-to-Copco reach (see also Section 7, below).

5. RESERVOIR REACHES: J.C. BOYLE, COPCO AND IRON GATE

The EIS makes little mention of potential future whitewater recreation on the 17 miles of the Upper Klamath that are currently inundated by J.C. Boyle, Iron Gate, Copco 1 and Copco 2 reservoirs. It is our understanding that the agencies are hesitant to predict the precise whitewater nature and scenic appeal of these sections. But it is unrealistic to ignore the enormous recreational potential of restoring 17 miles of one of the West's finest whitewater rivers. As part of the NEPA analysis for other high profile dam removals in the region—e.g. Elwha and White Salmon—the benefits to whitewater recreation of newly restored segments of free-flowing river were explicitly considered.

In the over 200 miles of the Klamath between Keno Dam and the point where the river becomes flatwater as it approaches the Pacific, nearly every mile of free-flowing river is used for whitewater recreation. It is highly unlikely that 17 miles of restored river would go unused by river runners. In fact, given the proximity of the Iron Gate and Copco sections to population centers and I-5, it is possible that these stretches will in future rank among the Klamath's most popular whitewater runs.

In his article "Resurrecting the Klamath: A Gift to be Claimed," Bill Cross projected the probable whitewater and scenic attributes of these sections of river that are currently inundated by reservoirs. This analysis was based on review of historical records, pre-dam photos, and gradient profiles. His findings are summarized as follows:

1. J.C. Boyle Reservoir Reach:

The upper two miles of the reservoir section, from the head of the reservoir to the Highway 66 bridge, are likely to offer a low-gradient, relatively easy extension of the Keno Run. This extension will greatly improve the Keno Run by eliminating the existing flatwater paddle to reach take-out. The following 1.5 miles, from the Highway 66 bridge to Boyle Damsite, have a much higher gradient of approximately 50 feet per mile, and are likely to offer intermediate to advanced whitewater. This second reach could be combined with the Boyle Bypass run immediately downstream. The entire 3.5 miles presently flooded by J.C. Boyle Reservoir will likely offer excellent forested scenery, with flow patterns similar to the Keno Run just upstream.

2. Copco Reservoir Reach:

This 6-mile reach will have a future gradient of approximately 18 feet per mile—the lowest gradient on the entire Upper Klamath below Keno Dam—and will likely offer an extended Class II to II+ run through scenic bottomlands. This reach will have a flow pattern nearly identical to Hells Corner, but will likely have a wider range of acceptable flows thanks to its much less challenging whitewater. The Copco Reservoir Reach will likely attract less skilled boaters, or those looking for a more relaxing scenic float. It will also appeal to both private and commercial parties making overnight or multi-day runs of this stretch, in combination with upstream and downstream reaches. Following removal of Copco 1 Dam, 1,000 acres of formerly inundated lands will become public open space, providing opportunities for hiking and camping.

3. Copco 2 Reservoir Reach:

This half-mile reach has an estimated gradient of 80-100 feet per mile, and may hold Class IV or even V rapids, giving it tremendous potential appeal for expert boaters and commercial outfitters. This section represents the uppermost portion of Wards Canyon, and would be paddled in combination with the lower portion of Wards Canyon—also known as the Copco Bypass Reach—immediately downstream. The Copco 2 Reservoir Reach will likely include scenic vistas similar to those found in the Copco Bypass Reach. Flows will be nearly identical to the Hells Corner reach upstream. The entire two miles of Wards Canyon (Copco 2 Reservoir Reach plus Copco Bypass Reach) could be combined with both upstream and downstream reaches for longer trips. In addition, if public access points are developed both above and below Wards Canyon, advanced paddlers might repeat the run more than once in a day—an option known to river runners as "doing laps." Given its proximity to I-5 (just 20 miles), this section could become quite popular with advanced and expert paddlers, and holds great potential for commercial raft outfitters.

4. Iron Gate Reservoir Reach:

Following removal of Iron Gate Dam, this 7-mile stretch will offer a gradient of roughly 25 feet per mile, and is likely to produce Class II+ to III+ whitewater. This stretch also offers

excellent potential for scenery and solitude, since the 1,000 acres of land currently inundated by the reservoir will revert to public open space following dam removal. With its location just a few miles from I-5 and strong summer base flows, this section has tremendous future potential for whitewater recreation, including commercial raft trips.

American Whitewater agrees that it is impossible to precisely predict future whitewater recreation on these sections of river currently inundated by reservoir. However, the EIS must acknowledge the high likelihood that these reaches will support whitewater use by both the general boating public and commercial outfitters, and that they might, ultimately, prove extremely popular. Ultimately, these reaches may offer partial mitigation for reduced opportunities for commercial raft outfitting on Hells Corner in the form of new experiences not currently available.

6. MITIGATION MEASURES

Dam removal presents an unprecedented opportunity to promote entirely new stretches of restored river to be enjoyed by both the general boating public and commercial outfitters. Toward that end, the EIS outlines a plan to develop Mitigation Measures, as described in section 3.20.4.4 under the acronym REC-1, that are intended to promote whitewater recreation. American Whitewater applauds this effort, and looks forward to participating in planning for new recreational facilities, public access points, and other mitigation measures.

a) Public River Access:

Carefully planned river access is essential to maximize the recreational potential of any river. Public access points are especially important at points where rivers change markedly in difficulty, so that boaters can choose those sections whose difficulty is best suited to their skills, craft and preferences.

Toward this end, American Whitewater believes the scope of the REC-1 plan should be extended upriver. The EIS calls for developing new facilities and public access points "along the newly formed river channel between J.C. Boyle Reservoir and Iron Gate Dam" (p. 3.20-62). American Whitewater believes REC-1 should be extended upstream an additional five miles to Keno Dam, to include the entire Keno Reach, since use of this section could be greatly affected by the transfer of PacifiCorp's Keno Facilities to DOI. Specifically, whitewater opportunities on the Keno reach could be greatly enhanced if DOI were to improve put-in access to the Keno Reach, as well as "park-and-play" access at Keno Wave.

In addition to access improvements at Keno, AW will be working to promote new or improved public access points at:

- Highway 66 bridge (aka Spencer Bridge)
- J.C. Boyle Damsite (or immediately downstream)
- Frain Ranch (improvements to both launch site and Topsy Grade)
- Above Wards Canyon (area currently inundated by Copco Reservoir)
- Below Wards Canyon (near existing Copco 2 Powerhouse)
- Iron Gate Dam Site

These public access points will benefit both commercial outfitters and the boating public.

b) Assistance for Outfitters:

The Upper Klamath has long supported a vibrant commercial rafting industry. Dam removal will be very challenging for outfitters, who will need assistance during the transition to a post-dam river. American Whitewater supports the following mitigation measures to assist commercial outfitters:

- Improved access at Frain Ranch, including improvements to Topsy Grade
- Timely issuance of new commercial rafting permits for newly restored runs and recognition that outfitters may desire to provide new types of experiences (e.g. overnight trips, multi-boat inflatable kayak trips, etc.)
- Public river access adequate to meet commercial outfitters' needs, including adequate roads, launch ramps, parking and restrooms.
- Test releases, in the season prior to dam removal, to simulate post-dam flows on Boyle Bypass, Hells Corner and Copco Bypass. Test releases will help outfitters evaluate new runs and prepare guides, equipment and logistics for post-dam conditions.

c) Flow Information:

Timely flow information is vital for both commercial outfitters and the boating public. American Whitewater supports maintaining all existing gauging stations on the Upper Klamath.

d) Channel Restoration:

- All debris associated with man-made structures needs to be removed from the river channel to facilitate safe passage by whitewater boaters.

- Vegetation that has colonized the dewatered Copco 2 Bypass Reach (Ward's Canyon) needs to be removed.

7. LONG-RANGE PLANNING AND PRESERVATION

The EIS should lay the foundation for two key efforts directed at long-term preservation of the Upper Klamath:

a) Preserving Open Space:

PacifiCorp owns 3,800 acres adjoining the reservoirs. Long-term management of these lands will profoundly affect whitewater recreation. American Whitewater looks forward to working closely with land management agencies to secure permanent protection for these lands, and ensure prompt restoration and revegetation efforts.

b) Wild & Scenic Designation:

The EIS should lay the groundwork for permanent protection of the entire Upper Klamath from Keno to Iron Gate as a National Wild & Scenic River. Currently only 11 miles from J.C. Boyle Powerhouse to the California-Oregon border are so designated. The eventual designation of the entire 44 miles from Keno to Iron Gate is possible only under the EIS's Proposed Action.

When combined with the existing 190-mile-long Lower Klamath Wild & Scenic River, designation of the Upper Klamath would represent the comprehensive designation of 234 unbroken miles from Keno to the sea. This designation would create the nation's longest continuous mainstem reach of Wild & Scenic River outside of Alaska, exceeding even Idaho's world-renowned Salmon River.

For whitewater boaters—both individual river runners and commercial outfitters—Wild & Scenic designation is of profound importance and unarguable benefit. Designation brings with it greater funding for public access and other facilities, enhanced government stewardship of whitewater resources, and expanded recreation support services such as river information. By increasing the river's visibility, designation promotes greater visitation. For outfitters, Wild & Scenic designation is a tremendous boon, bringing both widespread recognition of a river's outstanding scenic and recreational values, as well as a guarantee that the resource on which their business is founded will be carefully managed and permanently protected.

Few steps could do more to enhance future whitewater recreation than designation of the entire Upper Klamath as a Wild & Scenic River. For this reason, American Whitewater believes the EIS should specifically evaluate the following:

"Dam removal could enhance whitewater recreation by making the entire Upper Klamath below Keno Dam eligible for inclusion in the National Wild & Scenic Rivers System."

American Whitewater believes that the Proposed Alternative would clearly facilitate Wild & Scenic designation, and therefore be of significant benefit to whitewater recreation on the Upper Klamath.

Sincerely,

Thomas O'Keefe, PhD
Pacific Northwest Stewardship Director

/s/ Bill Cross
Regional Coordinator

Enclosure:
1. Bill Cross, Resurrecting the Klamath: A Gift To Be Reclaimed, American Whitewater Journal, September/October 2011.

STEWARDSHIP

FOR ANYONE WHO loves rivers, removing a dam is a gift. So what would you call removing four dams at once? Well, that would be like having your birthday, Christmas, Hanukkah and Kwanzaa all rolled up into one. Like that's ever going to happen ...

Yet in just under ten years, that's exactly what river runners could be doing: unwrapping the biggest dam-removal gift in history. In 2020, four dams may be demolished on the Klamath River near the Oregon-California border, helping to restore one of America's premier fishing and whitewater rivers. For the first time in over a century, more than 200 miles of the Klamath could flow free to the Pacific. It's possible thanks to a complex deal hammered out between conservationists, farmers, Native American groups, utilities, and fishermen. The historic agreement, signed in 2010 by the dams' owner, PacifiCorp, along with the Secretary of the Interior, the governors of California and Oregon, and others, is unprecedented—and controversial. Interior Secretary Ken Salazar hails it as "the largest river restoration in the world," yet some conservationists complain that it doesn't go far enough. And, perhaps surprisingly, many local raft outfitters wish one of the dams could stay.

The agreement contemplates a breathtaking possibility: removing four dams with a combined height of 400 feet; uncovering 17 miles of river flooded for half a century or more; and restoring flows to another 6 miles dewatered by hydropower diversions. In short, reuniting 233 miles of river into one unbroken, unfettered waterway, restoring the Klamath as the West coast's longest whitewater river.

It sounds fantastic...but what would it mean for river runners? Would a restored Klamath be one of the West's premier whitewater rivers? Or is it possible—as some outfitters fear—that this brightly wrapped box actually holds a white elephant? River runners need to know, because while it might be fun to open a mystery gift, dam removal is serious—and irrevocable.

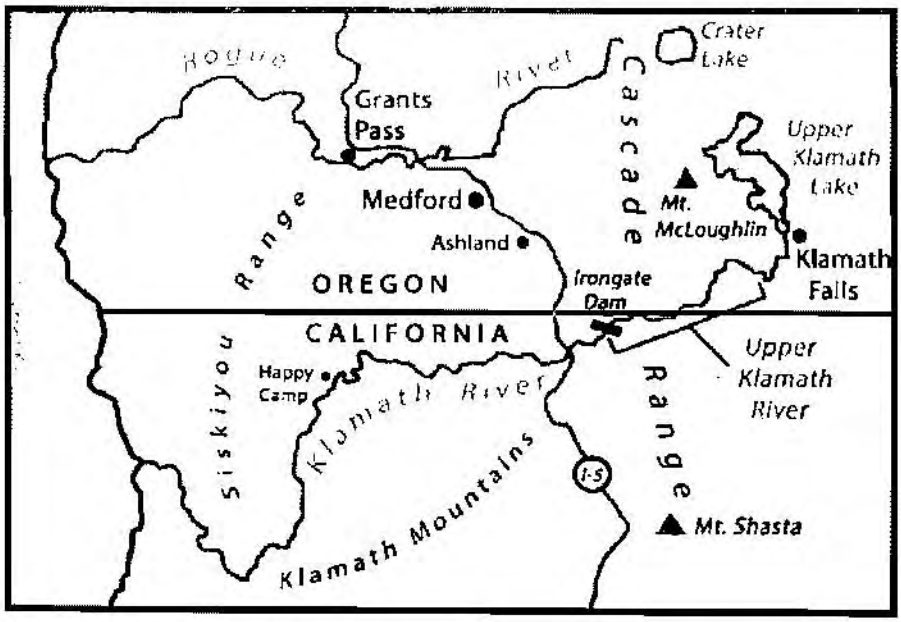
The dams were built long before boaters saw the Klamath, so there's no guide book to tell us what the pre-dam river was like. To predict what dam removal may reveal we need to "shake the box," seeking clues to what a restored Klamath would look like. Doing so will help river runners prepare for the tremendous changes dam removal would bring, while securing key provisions like accesses, preservation of open space, and assistance for commercial outfitters who will have to adjust to new flows on existing runs, while gearing up to guide clients down entirely new stretches. If river runners don't know what a restored Upper Klamath would look like, they may, quite literally, miss the boat.

American Whitewater strongly favors removing the Klamath dams. The article that follows, A River Runner's Guide to a Free-Flowing Upper Klamath, helps explain why undamming the Klamath is a boon not only for salmon and the river, but for boaters too, as miles of lost whitewater will be restored. Clearly there will be challenges for outfitters, but there are things we can do to ease their transition. In the long run, undamming the Klamath will be one of the best gifts river runners have ever received.

Want to know more? Let's shake the box.

Copco 1 Dam under construction in Wards Canyon, 1916. In 2020 this scene could be repeated—in reverse—as this dam and three others are dismantled.
Photo courtesy PacifiCorp.

A RIVER RUNNER'S GUIDE TO A FREE-FLOWING UPPER KLAMATH



Map 1: The Klamath River region.
Map by Bill Cross

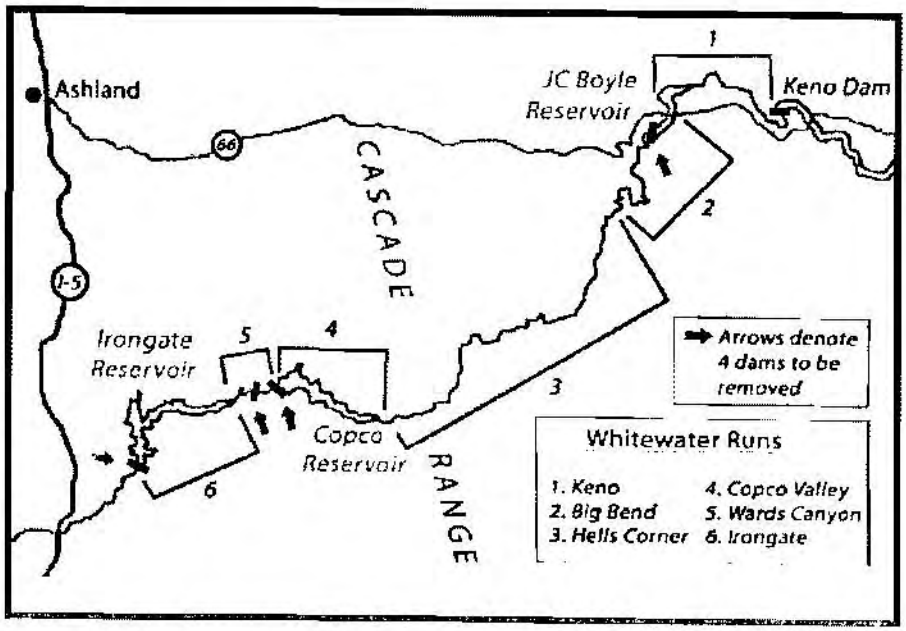
Cleaving the Cascades

The Klamath is a rebel. Most rivers rise from mountains rather than cutting through them. From the Appalachians to the Sierra Nevada, America's mountains give birth to her greatest whitewater rivers. But these offspring usually flow away from the summits where they were born; only rarely do they breach the very heart of a range. When they do, the spectacular collisions between roaring rivers and towering peaks produce many of America's finest multi-day whitewater trips.

The Klamath is one of these mountain-cleaving rivers—one of only three to have forced a passage through the lofty Cascade Range. Near the Oregon-California border, the Upper Klamath makes a dramatic 45-mile cut through the Cascades (see Map 1). The river was here before the mountains, and held its course as volcanic peaks grew up on either side. Yet unlike other rivers that traverse mountains, the Upper Klamath is not a mecca for multi-day trips. The reason is simple: the same geography that produces outstanding rapids is also ideal for producing hydroelectricity. Beginning in 1917, the river's frothy course has been repeatedly tapped to slake the West's insatiable appetite for electricity.

Today four dams block the river as part of PacifiCorp's Klamath Hydro Project: JC Boyle Dam, Copco Dams # 1 and 2, and Irongate Dam (see Map 2). Together they flood or dewater half the Upper Klamath, leaving only two boatable stretches—the lightly used 7-mile Keno Run, and a popular 17-mile Class IV+ stretch sometimes called Hells Corner. Even these remnants were once targeted for dams which, if completed, would have converted the entire Upper Klamath to power generation.

Hydroelectric development has profoundly harmed the Upper Klamath, decimating fisheries, degrading water quality and destroying some two dozen miles of whitewater. Before dams, the Klamath was the West's third most productive salmon river, with over a million fish spawning annually. Today dams block migrating fish from 420 miles of habitat and foster the



Map 2: Upper Klamath from Keno to Irongate. Four dams to be removed are marked with red arrows. Six whitewater runs are shown: two existing—Keno and Hells Corner—plus four potential new runs.
Map by Bill Cross.

growth of toxic algae. Salmon runs have plummeted, striking a terrible blow to the Klamath's indigenous peoples as well as to commercial and recreational fishermen. For river runners the effects have been more complex: the Klamath Project obliterates 23 miles of whitewater, but alters flows in a way that benefits commercial rafting on Hells Corner. As a result, dam removal has generated some controversy in the whitewater community. Adding to the tension is an almost complete lack of information about what a post-dam Upper Klamath would offer to river runners.

Gathering of Waters

Geographers divide the Klamath at Irongate Dam: everything upstream is the Upper Klamath, everything downstream is the Lower. The upper basin is dry by Oregon standards, but big enough—twice the size of Delaware—to generate impressive runoff. Like many Cascades rivers, the Upper Klamath has a moderate flow pattern, with much of the precipitation percolating into the porous volcanic soil, then emerging as steady springs that help keep the river runnable year-round in all but the driest years.

The waters of the upper basin gather in broad, shallow Upper Klamath Lake, Oregon's biggest body of water, which acts as a giant solar water heater, warming to over 70 degrees in summer. Where water spills from the lake, the Klamath is born. For its first 21 miles the river winds placidly past homes, farms and ranches, its current slowed by a dam near Keno. At Keno the Klamath shifts abruptly from its pastoral beginnings to its pell-mell passage through the Cascades. Keno Dam is not part of the four-dam removal package, and marks what would, in future, be the start of the free-flowing river. If all goes well, in a decade the Klamath will run free from here to the sea.

Below Keno the Upper Klamath has all the makings of a whitewater classic: high gradient, ample flow, excellent scenery, and—if the dams come out—several days' worth of boating. These 45 miles are the steepest on the Klamath, with an average gradient of 42 feet per mile and peaks of over 100 feet per mile. Where the river cuts down to bedrock it offers thrills to satisfy any expert, but there are milder sections as well, with gradients as low as 16 feet per mile. A restored river would offer runs to suit any taste, from mellow Class II to roaring Class IV+ or even V. The availability of more and longer runs would almost certainly boost the river's popularity with private boaters, and could help offset reductions in commercial use on Hells Corner. Currently most trips are single-day, but after dam removal boaters could enjoy multi-day journeys.

The Undiscovered Country

At last we're ready to launch our virtual boats for a guided tour of two places: the Klamath that is, and the Klamath that may be.

But first, a disclaimer: what follows is a guide to a river that does not yet exist. As a guidebook author I've written about scores of rivers, but never about runs that are buried underwater. To meet that novel challenge I have sought the best available information to predict what dam removal might reveal: USGS maps and flow data, pre-dam surveys, historical photos and accounts, PacifiCorp documents, Bureau of Reclamation flow projections, and reservoir depth-soundings. Still, some mystery remains. I have tried to distinguish clearly between what is known, and what is educated guesswork.

One unknown is how long it may take for reclaimed stretches of river to recover. Bypassed reaches will heal almost instantly: restoration is a matter of "just add water." But where reservoirs are drained, no one can be certain how soon the landscape will recover—though much could be done to hasten revegetation. The good news is that the reservoirs hold only moderate amounts of sediment. Much is fine-grained and should flush out almost immediately, though it may take several seasons to fully restore the channel.

Surfing the Keno Wave.
Photo by Marsh Chamberlain

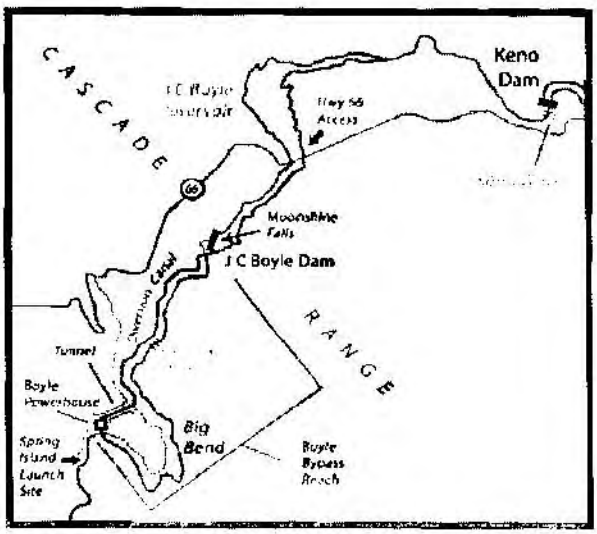
Another key concern is future flows. At present, dam removal is linked to the Klamath Basin Restoration Agreement (KBRA), which allocates water between agriculture and fisheries. KBRA would allow more year-to-year flow variation than the present regime, depending on each year's rain and snowfall. The guide that follows presumes that flows after dam removal would be governed by KBRA, but that is not a political certainty.

I have divided the Upper Klamath into six runs (see Map 2), and my descriptions project what these sections will be like once the river has recovered.

1. KENO RUN:
Keno Dam (4,065') to Hwy 66 (3,785' est.) – see Map 3
Length: 7 miles
Gradient: 40 ft/mi; 50 ft/mi first 5 miles
Difficulty: III

Keno is where river and mountains first clash, as the Upper Klamath makes its initial cut into the Cascades with a quick sprint through a rugged canyon (see Map 2). A highway parallels this run but stays far above the river, giving this stretch excellent solitude. The forested canyon is home to abundant bird life including eagles, cormorants, and pelicans.

Present
Exciting Class III rapids pepper the first five miles below Keno Dam, and not far below put-in Keno Wave offers outstanding park-and-play at the right flows. Although this run is technically boatable year-round, few use it in mid-summer since flows are skimpier here than on downstream stretches. Yet even during spring snowmelt, this run gets only modest use despite challenging whitewater and fine scenery. The culprit is the problematic take-out: JC Boyle Reservoir backs water over the final two miles, so boaters face a long flatwater paddle to take-out.

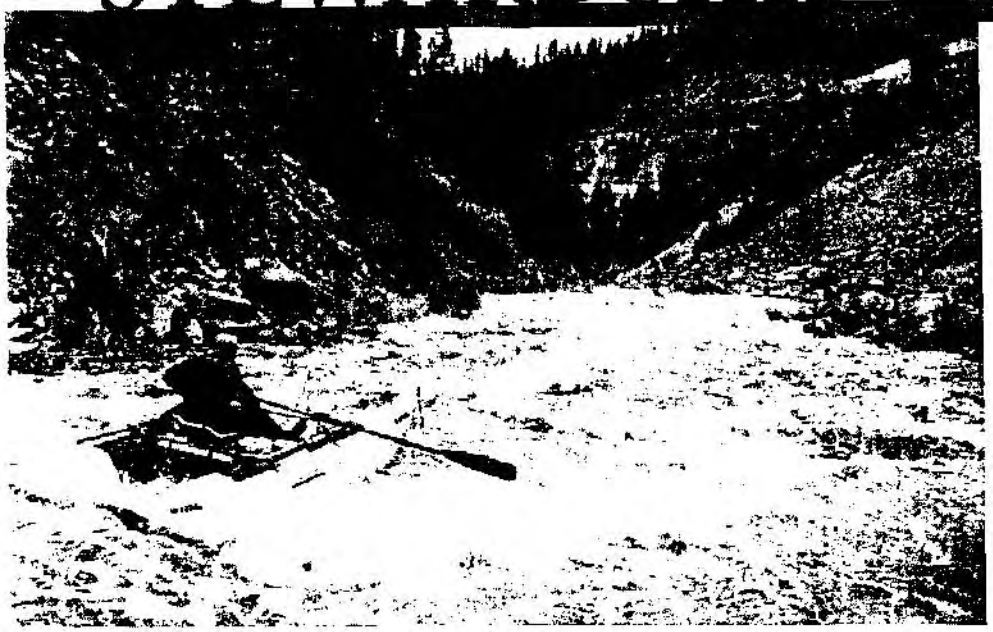


Map 3: Keno and Big Bend runs
Map by Bill Cross

Future
Dam removal will eliminate this run's biggest drawback—the flatwater at the end. Based on pre-dam surveys and reservoir depth soundings, the last two miles appear to have a gradient of about 10 feet per mile, suggesting good current and perhaps a few riffles. With Boyle Dam removed, boaters could combine the Keno run with the thrilling rapids of Big Bend just downstream. As part of dam removal, river runners could seek improved access below Keno Dam, allowing easier put-ins and greater use of Keno Wave.

2. BIG BEND:
Highway 66 (3,785' est.) to Spring Island Launch Site (3,300') – see Map 3
Length: 6 miles
Gradient: 81 ft/mi, peaks over 100 ft/mi
Difficulty: IV, V at higher flows.

Big Bend is steep. These half-dozen miles drop nearly 500 feet, making this an expert paddlers' paradise. Below the Highway 66 bridge the canyon narrows and the Klamath knifes into a deep gorge. The basalt bedrock is laced with subterranean water channels, and in this stretch the Klamath picks up roughly 250 cfs of steady spring inflow—most of it about a mile below JC Boyle Dam. In fact, anglers call this the Clearwater section in reference to the icy



Rafting Boyle Bypass Reach during the 2002 Recreational Flow Study. The diversion canal is visible above the right bank.
Photo by 2002 Recreational Flow Study

spring water. Near the end of this reach a two-mile meander known as Big Bend marks the canyon's deepest point, with rugged slopes rising a thousand feet from the river.

Present

This high-gradient stretch was an obvious target for hydro development. PacifiCorp's 68-foot-high Boyle Dam blocks the river a mile and a half below Highway 66, flooding the first part of the run and diverting the river into a canal for the next 4.3 miles. The dewatered "Boyle Bypass Reach" is reduced to fish flows except during rare high runoff. The water is returned to the river at Boyle Powerhouse, just below Big Bend.

Future

With Boyle Dam removed, this stretch could be a classic advanced run thanks to challenging whitewater, rugged scenery and strong base flows. Information about the lower part of the run comes mostly from a 2002 Recreational Flow Study that AW helped organize. Paddlers tested various releases from Boyle Dam into the bypass reach, and found excellent technical Class IV to IV+ whitewater, with good play above 1,000 cfs. No one knows what lies in the first 1.5 miles of the run, buried beneath Boyle Reservoir. Pre-dam surveys and reservoir depth soundings show a gradient of about 50 feet per mile which, given the narrow channel, could produce strong whitewater. Intriguingly, historical photos show a riverwide ledge known as Moonshine Falls near the Boyle damsite, but it's unknown whether the falls survived dam construction (see photo).

Moonshine Falls before construction of JC Boyle Dam.
Photo courtesy Klamath County Museum

Big Bend should be boatable year-round in all but the driest years, thanks to strong mid-summer base flows plus spring inflow. The run is at its best above 1,000 cfs, and should flow at or above those levels throughout spring runoff in most years. Mid-summer flows would fall below 1,000 cfs in most years, but kayaks and small rafts could still probably navigate the run all summer except in dry years. Larger rafts—including commercial paddle boats—could use the run in spring when flows are higher, and possibly all summer in wet years. Mid-summer use could be enhanced by developing an alternate put-in at Boyle damsite, just above where springs add flow. Big Bend would make an excellent day trip, or could be linked with adjoining runs for longer trips.

3. HELLS CORNER:

Spring Island (3,300') to Copco (2,605')
Length: 17 miles
Gradient: 41 ft/mi; peaks around 75 ft/mi
Difficulty: IV+

Hells Corner is by far the best-known section of the Upper Klamath. In fact,

Paddle raft on Hells Corner.
Photo courtesy Kokopelli River Guides

when most river runners say "Upper Klamath," they mean these 17 miles. The reason is simple: this is the only section other than Keno that is not inundated or dewatered. Hells Corner marks the midpoint of the river's descent through the Cascades, the landscape becoming gradually drier with each mile. As the river crosses into California (mile 11) the rugged canyon gives way to a broader valley with easy whitewater.

Present

Hells Corner's outstanding rapids make it a favorite of commercial outfitters. Most of the drops are packed into a five-mile gorge in the middle of the run where the gradient soars to 74 ft/mi and the river pounds through powerful Class IV and IV+ rapids. Boaters can take out at the state line or continue down six miles of Class II to the hamlet of Copco. Hells Corner is much less popular among private boaters, in part because of the arduous shuttle.

The key to this run's commercial success is reliable summer flows, allowing outfitters to book several thousand clients every summer. Hells Corner's consistent flows are not natural: they are the result of hydro development. JC Boyle generates electricity during peak demand from late morning through mid-afternoon. PacifiCorp stores up the Klamath's flow every night, releasing a paltry 100 cfs of "fish flow," then discharges the pent-up water through Boyle Powerhouse the next day in an oversized pulse. Thanks to these artificially enhanced flows, even in mid-summer rafters ride a powerful surge of 1,550-1,750 cfs.

Future

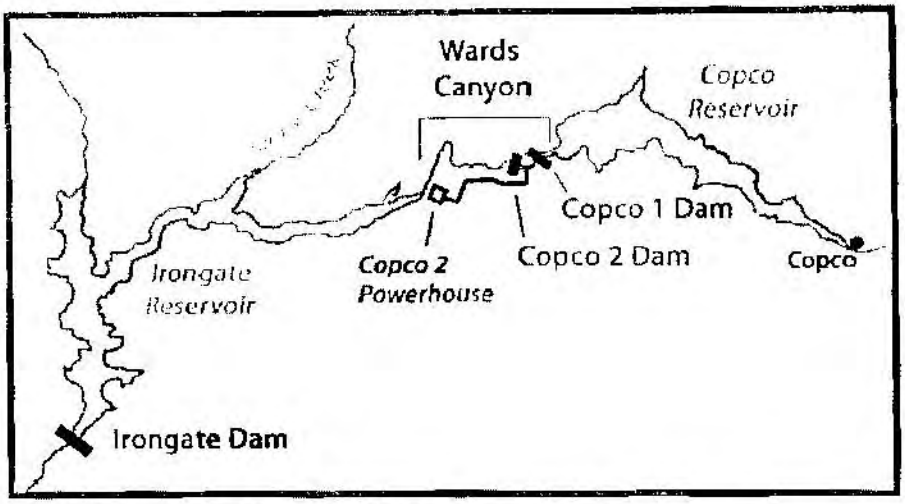
The most obvious effect of dam removal would be a shift from peaking releases to a steady round-the-clock flow, partway between today's peak flow and fish flow. And that has outfitters worried. Many fear that these intermediate flows won't support rafting in summer—or at least not the adrenaline-charged ride that thrills customers. Everyone agrees that the river will still offer great rafting during spring snowmelt, but opinions differ over whether commercial rafting would be viable after early July in most years.

Under KBRA, post-dam flows are projected to be at or above today's peak-release levels until around early June on average, then gradually recede to mid-summer lows averaging about 1,000 cfs. Because KBRA allows considerable year-to-year variation, about one year out of four mid-summer flows would dip below 800 cfs, while in wet years they could stay above 1,200 all summer. That increased variability will be tough on outfitters, who relish consistency.

What would Hells Corner be like at the range of mid-summer flows projected under KBRA? In the 2002 Flow Study, boaters tested releases of 730, 1,060 and 1,360 cfs. They agreed that 730 was too low for commercial rafting, though the run was possible for kayaks and small inflatables. That suggests the run should almost always have enough mid-summer flow for boaters in small craft who don't mind bony conditions, but the driest years will simply be too low for summertime commercial rafting. At 1,060 cfs—close to KBRA's projected post-dam mid-summer median—the 2002 study found good technical paddling and the possibility of low-flow commercial rafting, though several outfitters felt conditions were too rocky. At 1,360 almost everyone agreed commercial rafting would be viable.

Those findings make it tough to predict just how popular or satisfying mid-summer commercial rafting would be after dam removal. It's safe to say that in most summers, Hells Corner would not be as attractive to clients—or as profitable for outfitters—as it is now. Outfitters could probably navigate the run in smaller rafts throughout most summers, but it's hard to guess how many customers would sign up for these lower-flow runs.

One unquestioned benefit of dam removal on Hells Corner would be morning flow. At present, peak releases usually reach the primary put-in by ten AM, but it takes the water another couple of hours to reach the intermediate access at Frain Ranch, five miles downstream. Some outfitters and many privates would prefer to launch at Frain because it greatly shortens the shuttle, but few want to wait that long for flows to arrive. Without dams there would be no wait—the water would always be there. To maximize this benefit, river runners could press for improvements to the extremely rough road in to Frain Ranch. Morning flow could also make Hells Corner a more viable overnight trip by eliminating the long wait



Map 4: Upper Klamath from town of Copco to Irongate Dam.
Map by Bill Cross

for releases to reach campsites miles below the powerhouse.

4. COPCO VALLEY:
Copco (2,605') to Wards Canyon entrance (2,500' est.) – see Map 4
Length: 6 mi.
Gradient: 18 ft/mi
Difficulty: Probable II to III+

The six-mile Copco Valley run would be the gentlest on a restored Upper Klamath—thanks, ironically, to a dam. Not Copco 1 Dam, the 126-foot-high concrete plug that currently floods this stretch. No, the dam that produces this easygoing reach is far older. Six miles below the settlement of Copco a lava flow once blocked the river, backing up a five-mile lake. The Klamath gradually filled the lake bottom with sediment, then carved a deep outlet notch through the lava dam, creating the landscape that Native Americans once knew: the Klamath winding gently through a broad valley before knifing into a deep volcanic canyon.

The dramatic entrance to Wards Canyon at the end of Copco Valley, before construction of Copco 1 Dam, circa 1910.

Present
The lava narrows, known to settlers as Wards Canyon, was the Klamath's most obvious damsite, and in 1918 Copco 1 Dam was built, flooding the valley. The reservoir's straight channel masks the serpentine meanderings of the original river, and motorboats now skim over what was once the most fertile stretch of river below Keno: pre-dam maps show the river winding past ranches, pastures and orchards.

Today Copco Reservoir's stagnant waters produce a decidedly less appealing crop: toxic algae. When the Klamath's warm waters stagnate, trouble brews, and almost every summer blooms of blue-green algae coat Copco and Irongate Reservoirs, emitting a potent toxin that has forced swimming closures at the reservoirs and along the Lower Klamath. At times the State of California has posted warnings for over 80 miles downstream, deterring some boaters—including commercial outfitters' customers—from visiting the Klamath. The river simply can't flush the reservoirs quickly enough to keep the algae at bay, but dam removal will dramatically improve water quality by letting the Klamath flow swiftly through these sections.

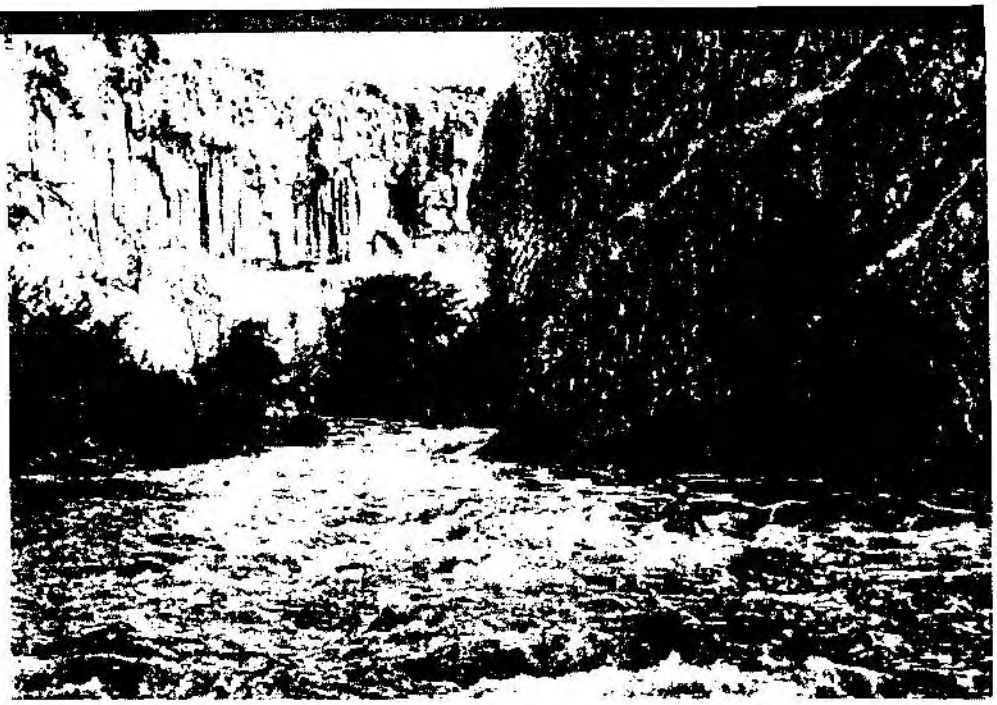
Future
Pre-dam surveys show a modest gradient, implying good current but easy whitewater—ideal for less experienced boaters or anyone who prefers scenery to thrills. Historic photos show a lush riverside forest, and once vegetation returns, wildlife should thrive. Draining Copco will expose 1,000 acres of riverfront land, much of it gently sloping benches ideal for camping and hiking. Outfitters and private boaters could use this run several ways: for gentle one-day trips; as an extension of the final five easy miles of Hells Corner; for camping after running Hells Corner; or as a prelude to the dramatic whitewater of Wards Canyon. The key to making this a workable run is to develop accesses just above Wards

Toxic algae in Copco Reservoir.
Photo courtesy of Klamath-Salmon Media Collaborative

Canyon, so less experienced boaters can take out before the big rapids downstream.

5. WARDS CANYON:
Wards Canyon Entrance (2,500'est.) to Copco 2 Powerhouse (2,330') – see Map 4
Length: 2.0 mi
Gradient: 85 ft/mi
Difficulty: IV; possible V

Wards Canyon is a whitewater brawl. Bookended by the peaceful Copco Valley upriver and the moderate Irongate run downstream, Wards Canyon is an intense clash between the irresistible force of the Upper Klamath and the immovable object of a lava dam. The Klamath wins this geologic fracas by slashing a deep cleft through the dam, but the lava gets enough licks in to churn the river to foam in the turbulent passage. It's a natural collision guaranteed to quicken the pulse of advanced boaters. But Wards Canyon is more than just big whitewater: it is a scenic and geologic wonder, a 300-foot-deep defile bounded by sheer colonnades of columnar basalt.



Kayaking Wards Canyon during the 2002 Recreational Flow Study.
Photo by 2002 Recreational Flow Study

Present

Wards Canyon is an engineer's dream: easy damsites, a steep descent and abundant flow. Small wonder that every inch is tapped for hydro production. Copco 1 Dam blocks the river a quarter-mile below the canyon entrance. Then 500 yards downstream, Copco 2 Dam diverts the entire river (except at rare high water) into pipes that bypass the channel for 1.5 miles down to Copco 2 Powerhouse. The dam releases a paltry 10 cfs to the bypass reach, which as a result is heavily overgrown with brush. All of which means that Wards Canyon has never been available for boating. The only documented runs were during the 2002 Flow Study, and even those only reconnoitered the bypass reach. No boater has ever seen the upper half-mile that is buried by dams.

Future

Wards Canyon has tremendous potential, especially given its proximity to I-5. To predict what the rapids will be like, our best modern source is the 2002 Flow Study, when paddlers tested releases from Copco 2 Dam into the bypass reach. At 1,200 cfs—barely higher than median projected mid-summer flows under KBRA—they found numerous exciting Class IV rapids. Historical sources offer clues to what lies in the uppermost half-mile, buried beneath the Copco dams. Engineer John Boyle's 1911 description of Copco 1 damsite speaks volumes:

> The width of the canyon...was 70 feet, all of which was taken up by the water of the river. For 150 feet above the dam and 350 feet below, the river channel had a grade of 2 feet per hundred, producing a velocity... of about 20 feet per second.

Boyle's description tells us the river was narrow, very swift, and had a gradient near 100 feet per mile. Clearly Wards Canyon started with a serious bang—certainly Class IV, possibly higher. We simply won't know until the dams come out.

Wards Canyon has a lot going for it: big rapids, spectacular scenery, summer-long flows, short shuttle and location 20 miles from I-5. Outfitters could offer half-days, or full-days in combination with adjoining reaches. Private boaters could do "laps" of this short stretch, while overnight boaters could continue downriver. The key elements needed are new accesses at the upstream and downstream ends of the canyon, along with brush removal—after 90 years of diversions the canyon is so overgrown that it could take decades to clear on its own.

6. IRONGATE:

Copco 2 Powerhouse (2,330') to Irongate Dam (2,170') – see Map 4
Length: 7 mi
Gradient: 24 ft/mi
Difficulty: probable II+ to III+

In Irongate the river finds a happy medium between the mellow meanderings of Copco Valley and the hell-for-leather sprints of Big Bend and Wards Canyon. In this final stretch the Upper Klamath flows through a semi-arid canyon dotted with oak, juniper and pinyon pine. The run ends below Iron Gate, a scenic narrows for which the dam is named.

Present
Since 1962 this reach has been flooded by 173-foot-high Irongate Dam.

Future
This reach has great potential, combining strong summer flows with enough gradient for good whitewater—most likely intermediate, though stronger drops are possible. It is long enough for a day trip, or could be combined with adjacent sections for longer runs. The first four miles descend at a brisk 30 feet per mile as the river courses through a narrower canyon. Three miles above Irongate the canyon broadens and the gradient eases to 16 feet per mile, suggesting good current but milder rapids in the final stretch.

Irongate could prove quite popular for both private and commercial trips. For outfitters, the run's proximity to I-5 makes it potentially fertile territory: take-out is just nine miles off the interstate. This stretch may hold the most accessible intermediate whitewater on the entire Klamath, along with good camping and solitude. As at Copco Reservoir, draining Irongate will expose 1,000 acres of previously flooded land, but unlike Copco there are almost no homes along the shore. With proper stewarship, Irongate could offer excellent scenery and seclusion just miles from I-5.

Making the Gift Count

Removing the Klamath dams is great news for river runners—one of the biggest gifts the whitewater community has ever received. Spectacular reaches of river will be restored, new whitewater runs will emerge, toxic algae will cease to pollute the lower river, and the Upper and Lower Klamath will be reunited into the West Coast's longest continuous whitewater river. The transition will be challenging for local raft outfitters, yet even as they lose Hells Corner's predictable flows, they will find new long-term opportunities on a restored Klamath.

But the gift of dam removal won't mean much to boaters if they can't use the river. That's why American Whitewater is working to secure access, eliminate boating hazards, preserve open space and ensure that a restored Klamath is fully accessible to both private and commercial river runners.

The BLM has completed a study of the effects of dam removal on whitewater recreation, and is seeking public comment. AW is urging the BLM to support dam removal while planning ahead to maximize future whitewater recreation on a restored river. We need your comments in support of these goals.

1. Claim the Gift: Undam the River

While many groups are focused on the fishery benefits of a restored river, there are also recreational benefits to free-flowing rivers. Paddlers are uniquely qualified to provide this perspective and register support for the removal of all four Upper Klamath Dams.

2. Demand the Accessories: A River Runners' Wish List

Removing the dams is great but to take full advantage of a restored river and enjoy a quality recreational experience there are a number of details that need to be addressed in the restoration plan. The time to weigh in with these specific needs is now, as restoration plans are being developed:

- **Public Access:** Access is vital, especially where the difficulty of whitewater is variable, so boaters can choose runs suited to their skills and tastes. Paddlers should request new or improved access at Keno Dam, Highway 66 Bridge, JC Boyle Dam Site, Frain Ranch, Above Wards Canyon, Below Wards Canyon, and at Irongate Dam Site.

- **Assistance for Outfitters:** The river has long supported a vibrant commercial rafting industry. Dam removal will mean changes but these changes can be positive if basic steps are taken to address outfitter needs. These include improved access at Frain Ranch, timely issuance of permits for new runs, and restoration of a more natural flow regime just prior to dam removal to help outfitters evaluate the run and prepare guides, equipment and logistics for post-dam conditions. Following dam removal, continued access to flow information is important for all river runners.

- **Restoring the River Channel:** In removing the dams, all debris associated with the man-made structures needs to be removed from the river channel to facilitate safe passage. In addition, vegetation that has colonized the dewatered Ward's Canyon needs to be removed.

- **Preserving Open Space:** PacifiCorp owns 3800 acres adjoining the reservoirs. Management of these lands will profoundly affect river runners. AW supports permanent protection of all PacifiCorp lands, including restoration and revegetation.

- **Permanent Protection:** Finally, to protect the investment in river restoration, we support designating the entire Upper Klamath from Keno to Irongate as a National Wild & Scenic River.

Watch the American Whitewater website for additional details on providing comments. The public comment period will be open for 60 days starting on September 22. You will be able to file comments on the Klamath Restoration website, http://klamathrestoration.gov, where you can also sign up to receive future updates.

Bill Cross is the co-author of Western Whitewater from the Rockies to the Pacific, *an award-winning guide to over 150 rivers. He is an AW volunteer Regional Coordinator, and was named AW's 2009 River Steward of the Year for his work on the Rogue River.*

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From: JOHN & ANITA WARD[SMTP:E_JOHN_WARD@MSN.COM]
Sent: Friday, December 30, 2011 4:20:02 PM
To: BOR-SHA-KFO-Klamathsd
Cc: Kellie Christensen; Mike Masters; John Ward; Harry Piper; Tom Collett; Dick Chambers
Subject: Rogue Flyfisher Comment on Klamath Facilities Removal EIS_EIR
Auto forwarded by a Rule

Dear Ms. Elizabeth Vasquez,

Thank you for the opportunity and additional time to comment on the Draft Klamath Facilities Removal EIS/EIR.

Rogue Flyfishers supports Alternative 2– Full Facilities Removal of Four Dams (Proposed Alternative).Removal of the four lower PacifiCorp dams on the Klamath River:J C Boyle, Copco 1, Copco 2, and Iron Gate Dams fully meets the**need**to advance restoration of the salmonid fisheries in the Klamath Basin consistent with the Klamath Hydroelectric Settlement Agreement (KHSA) and the connected Klamath Basin Restoration Agreement (KBRA).This action also fully meets the**purpose**to achieve a free flowing river condition and full volitional fish passage as well as other goals expressed in the KHSA and KBRA.

The EIS/EIR has been scoped to include a very wide range of**reasonable alternatives**, appropriately screened to a narrower range of retained alternatives.Each alternative is supported by appropriate and compelling data, and careful analysis.We feel**the Evaluation and Proposed Action demonstrates potential benefits for fisheries, water and other resources that far outweighs the potential costs**, risks, liabilities or other adverse consequences ofsuch removal.We accept the short term impacts with assurance of successful restoration and sustainable natural salmonid production long term in the Klamath River system.The harvest opportunities for sports, commercial and tribal fisheries will contribute to improved public welfare and the reliable water and power supplies at affordable costs will sustain agricultural uses, National Wildlife Refuges and all Klamath Basincommunities.

Appendix C notes ‘dam removal would release accumulated sediments downstream’, and ‘Modeling studies indicate reservoir drawdown would erode and flush 41 to 65 percent of stored sediment downstream’.The EIS includes an Option if analysis indicates release of sediment could result in significant effects, EIS/EIR may include consideration of dredging sediments out of reservoirs before removing

dams.This contingency seems to be adequately covered as was the situation recently when removing three dams on the Rogue River.

Appendix E analyzes the potential suspended sediment effects on anadromous fish in the Klamath Basin with Chinook salmon, coho salmon, and steelhead having varying response if fall- or spring-runs, or summer and fall/winter runs with moderate physiologicalstress and major physiological stress depending on exposure duration.In some circumstances, the No Action/No Project alternative appeared to have as much impact as Full Facilities Removal.Our assessment is that Alternative 2 would in most instances only have moderate physiological stress effects.

Again, thank you for the opportunity to comment.

Sincerely,

John G. Ward, Conservation Chair

Rogue Flyfishers

P.O. Box 4637

Medford, OR97501